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# A Study on the Knowledge of Food Borne Diseases and Hygiene Practice in Home Kitchen Handlers

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**Abstract:** In India food borne diseases are increasing day by day due to improperly prepared or mishandled food, unhygienic sanitation and cleaning practice at home by home kitchen handlers Food borne illnesses instance happen because of insufficiently arrange or use inexpertly food, unsanitary and washing application in house by food makers. Inappropriate action and insufficiency awareness among women are responsible factor for the increase of diseases. Illnesses develop by food always ordinary and constant complication emerge in substantial morbidity and irregular death. Women are more involved in safeguard of food security in the line of manufacturing, manage, collection and development. The importance of secure food handling is to teach everyone mainly those handling kitchen how they can help to prevent contaminants from getting onto the food. The objective of this study was to assess the knowledge and practice of female in Faridabad city who are working in the kitchen daily. The sample size for this study was composed of 100 subjects. Purposive sampling technique was to select the samples by the interview method the study concluded that the kitchen handlers have high awareness about the foodborne disease and hygiene practices. There is significant difference ( $<0.01$ ) between the knowledge, attitude and practices among kitchen handlers. The study concluded that there is a significant association between awareness, attitude and practice among kitchen handlers during preparing food in kitchen.

**Keywords:** Hygiene, food borne diseases, Kitchen, knowledge, Attitude, practice.

## I. INTRODUCTION

Foodborne disease is a illness that happen because consumption of contaminated food and when the food contaminated with pathogenic bacteria, parasites and viruses. A Foodborne illness worldwide increasing and it may origin many healthiness and productive erosion. There is major foodborne pathogens that causing illness are salmonella nontyphoidal, Campylobacter and, Listeria<sup>(1)</sup> Food sanitation also extends to keeping the preparation area clean and germ free. Food contact areas should be clean before and after preparing the food.

Kitchen equipment's like blender, cutting board, kitchen shears, mixing bowls, knives etc. should be washed before use. Kitchen slabs should be cleaned each and every use because it prevent the food poisoning<sup>(2)</sup> There is a increase number of food born diseases, now the governments all over the world have been taking initiate to overcome these problems and improve the knowledge about the hygiene and sanitation practices among population.

Which reduces the great occurrence of diarrhoeal death and many other food born illnesses<sup>(3)</sup> The poor food handling practices is a major risk of increasing the disease. In India religious practices play a presiding role in food handling practices. The food handling methods take on by the women during religious and social rituals practices are not good to safeguard the food. The component which increase the risk of illness are unsafe keeping of food (time and temperature), poor personal hygiene, contaminated utensils and inadequate cooking<sup>(4)</sup> At the household level the role of mothers is well acquire and perception of the status of their food handling knowledge and practices is needed.

A study shows that food handlers have inadequate knowledge and measure needed to protect food born diseases in the home<sup>(5)</sup> A healthy and evenly balanced diet is crucial for a better health.

If the peoples taking a good amount of food stuff but it are not nutritionally balanced it may lead to many illness and peoples may become undernourished. Children and women are more unprotected to poor nutrition. undernourishment can lower the performance and make them more likely to suffer from infectious disease<sup>(6)</sup> Today, in all nations foodborne illnesses is amid the major issue which hazard good health. Food borne diseases greatly influence people's health.

And their unhealthy outcome are bounce back on the development, foreign trade and national economy<sup>(7)</sup> In low level developed countries, numerous peoples are suffering from diseases due to utilization of food which happened underneath unsanitary condition. Even in developed countries there is lack of health education, improper food stock condition, absence of hygiene and sanitation

practices<sup>(8)(9)</sup> The importance of hygiene is to teach everyone specially the rural mothers how they can help to prevent contamination from getting onto the food. Now there is a great chance of food poisoning due to unhygienic condition. There is a need to give awareness to the rural mothers so that they can prevent these problems and learn how to overcome them by taking as many precaution measurable as possible<sup>(10)</sup>

## II. MATERIALS AND METHODS

This study was conducted in the rural area of Faridabad Tehsil of Faridabad district. The target of population comprised of women who were dealing with Home kitchen daily. The sample size for this study was composed of 100 subjects Purposive sampling technique was used to select the samples. Women who are living in selected rural area of Faridabad. A Structured questionnaire were prepared and administered on subject to assess the knowledge of "food borne diseases" and hygienic practice in home kitchen handlers. Data were analyzed by the statistical analysis. Percentage analysis and Pearson correlation was applied using SPSS version 21 for statistical analysis.

## III. RESULT AND DISCUSSION

Table 4.1: Demographic profile of the subjects

Characteristics	Participants (n=100)
Age	
20-40	77%
41-50	23%
Socio-economic group	
High income group	4%
Middle income group	96%
Low income group	0%
OCCUPATION	
Working	25%
Non-working	75%
Education level	
Below high school	20%
High school	23%
Graduate	38%
Post graduate	19%
Family status	
Nuclear	14%
joint	86%

The data in table 4.1 shows that all the participants in this study were female. The age ranged between 20 to 40 were (77%) and 41 to 50 were (23%) respectively, 4% were belong to high income group and 96% were belong to middle income group with 25% of participants were working and 75% were non-working. About 20% of participants had below high school education, 23% had high school education, 38% were graduate and 19% were post graduate with 14% of participants were living in nuclear families and 86% were living in joint families.

Table4.2: Distribution of subjects on the basis of knowledge of food borne diseases and hygiene practices

Home kitchen handles knowledge(n=100)	Positive Answer (%)	Negative Answer(%)
1. Know about the hygiene and sanitation?	97(98%)	2(2)%
2. One should wash hand before start work in the kitchen?	67(67.7)%	32(32.3)%
3. Hand should be dried with towel?	88(88.9)%	11(11.1)%
4.Wiping cloths like hand towels can spread microorganism?	77(77.8)%	22(22.2)%
5.Food contact area should be clean before and after preparing the food?	94(94.9)%	5(5.1)%
6.Kitchen utensils should be clean before using them?	81(81.8)%	18(18.2)%
7.Keeping food in refrigerator prevents food borne diseases ?	87(87.9)%	12(12.1)%
8.Incorrect application of cleaning and sanitation procedure for equipment increase the risk of FBD	99(100)%	0%
9.Know about correct temperature for refrigerator?	19(19.2)%	80(80.8)%
10.Reheating of food is likely contribute to food contamination	65(65.7)%	34(34.3)%
11.Used oil can be used again and again?	24(24.2)%	75(75.8)%
12.Kitchen cleaning should be done every week	66(66.7)%	33(33.3)%

Table4.2 indicate that home kitchen handlers knowledge was high with percentage score of 98% participants know about the hygiene and sanitation Maximum subject (67.7%) were wash hand before start work in the kitchen whereas (88.9%) were dried their hand with clean towel and about (77.8%) had knowledge about that wiping cloth like (hand towel) can spread contamination through microorganism, (94.9%) subject were aware about the food contact area should be clean before and after preparing the food.

(81.8%) participants were know that the Utensils should be clean before using them,(87.9%) know that keeping food in refrigerator prevents food borne diseases, all the participants had good knowledge that incorrect application and sanitation procedure for equipment increase the risk of food borne diseases, only 19 subjects i.e (19.2%) had aware about the appropriate temperature for different food items kept in refrigerator,(65.7%) participants were about that reheating of food is likely contribute to food contamination,(24.2%) participants were know that used oil can't be used again and again and (66.7%) participants know about that kitchen cleaning should be done every week.



Table4.3 Distribution of subjects on the basis of Attitude Of Food Borne Disease And Hygiene Practices

Home kitchen handlers attitude	Positive Answer(%)	Negative Answer(%)
1. Frequent hand washing with water and soap during food preparation is essential?	93(93.9)%	6(6.1)%
2. Washing hands with soap after touching raw meat, fish and eggs before cooking is important?	73(73.7)%	26(26.3)%
3. Disease transmitted through food?	54(54.5)%	45(45.5)%
4. The main risk factor for disease transmission through food?	73(73.7)%	26(26.3)%
5. When should kitchen counters be washed, rinsed and sanitized?	99(100)%	0%
6. Utensils should be clean before use?	80(80.8)%	19(19.2)%
7. Fingernails could contaminate food with foodborne pathogens?	76(76.8)%	23(23.2)%

The data in table 4.3 indicate that majority of participants (93.9%) were think that frequent hand washing with water and soap during food preparation is essential, (73.7%) of women think that washing of hands with soap after touching raw meat ,fish or eggs before cooking is important, 54.5% participants agreed that diseases transmitted through food, About (73.7%) participants know about the main risk factor for disease transmission through food, All the participant (100%) know that when the kitchen counter should be washed , rinsed and sanitized, (80.8%) participants agreed that utensils should be clean before use and (76.8%) think that long fingernails could contaminated food with foodborne pathogens.

TABLE 4.4 Distribution of subjects on the basis of routine practice on preparing of food and cleaning of kitchen

Home kitchen handler's practice(n=100)	Positive Answer(%)	Negative Answer(%)
1. Clean the work area before you start work?	82(82.8)%	17(17.2)%
2. Wash your hand before you start work?	74(74.7)%	25(25.3)%
3. Use the same towel to clean many places?	29(29.3)%	70(70.7)%
4. Wash wiping cloth with soap daily ?	60(60.6)%	39(39.4)%
5. Work in the kitchen when suffering from contagious diseases?	11(11.1)%	88(88.9)%
6. You dry wiping cloths?	53(53.5)%	46(46.5)%
7. You wear apron during work?	38(38.4)%	61(61).6%
8. Correct way to clean the kitchen countertop and stove?	27(27.3)%	72(72.7)%

Table 4.4 shows that participants have good hygienic practice. 82.8% participants maintain good hygiene by clean the work area before start work and 74.7% participants wash their hands before start work, 70.9% subject were using the same towel to clean many places and 60.6% participants wash wiping cloth with soap daily,88.9% participants work in kitchen when they are suffering from contagious diseases, About (53.5%) participants dry the wiping cloth daily by giving heat or in presence of sun light, 38.4% participants were always wear apron during work and only 27.3% participants use the correct way to clean the kitchen countertop and stove.

TABLE: 4.5 Correlations between the level of knowledge, attitude and practice of food born diseases and hygiene practice.

		Knowledge	Attitude	Practice
Knowledge	Pearson correlation	1	0.561**	0.424**
	Significance(2-tailed)		.000	.000
Attitude	Pearson correlation	.561**	1	.448**
	Significance(2-tailed)	.000		.000
Practice	Pearson correlation	.424**	.448**	1
	Significance(2-tailed)	.000	.000	

\*\*.Correlation is significant at the 0.01 Level (2-tailed)

Table 4.5 depicts that the highly correlation between knowledge and attitude and practices. Because all the values comes out to be less than 0.01 level it concludes that it has a positive correlation between knowledge, attitude and practice.

#### IV. CONCLUSION

The present study was the knowledge, attitude and practice of food borne diseases and hygiene practices are based on the rural context of women. In India, most of the "food handlers" in the home are women. In earlier time in Rural areas women are less educated and they don't have much knowledge about the food borne diseases and hygienic practices. But now the whole scenario has changed due to the changed in the status of women in the society .Now in rural areas the new generation getting proper education and they are aware about the hygiene and sanitation .They have proper knowledge about how they can clean their workplace .However,due to lack of proper applicability of hygiene practices the diseases get increase .women have high awareness and positive attitude towards hygiene practices but because of less practical application food borne diseases increases. Hence there is a need to educate and motivate women so that they can follow the hygiene practices

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