iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 8 **Issue:** V **Month of publication:** May 2020

DOI: http://doi.org/10.22214/ijraset.2020.5067

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 8 Issue V May 2020- Available at www.ijraset.com

A Survey on Food Safety Awareness and Practices among Housewives

Mrs. Meena Kumari[1], Ms. Nasreen Begum[2], Charu Agarwal[3], Mariam Fatima[4], Qudsia Mohammadi[5], Zoha Khan[6]
[1, 2, 3, 4, 5, 6]*Department of Nutrition, St. Ann's College for Women, Mehdipatnam, Hyderabad-500028, India*

Abstract:** Background: Practicing hygiene and sanitation play an important part in maintaining health. Health can be defines as state of physical, mental and social wellbeing of an individual, and as a resource for living a full life. It refers to not only the absence of disease, but the ability to recover bounce back from illness and other problems. Sanitation is the hygienic means of promoting health through preventive of human contact with the hazards of wastes as well as the treatment and proper disposal of waste. It makes the environment neat and clean and helps the people to prevent different diseases and be safe from harmful components. Health and hygiene are therefore interrelated. The absence of hygiene and sanitation impairs health. In the absence of proper sanitation and hygiene, there can be microbes or pathogens that can cause contamination of the food, which may lead to different types of food borne illnesses. Hence, health and hygiene surveys are an important tool to measure a population's health status, behaviour, hygiene and risk factors in addition to evaluating quality of heath care of different socio economic groups. By conducting surveys at frequent intervals, health and hygiene patterns can be spotted in various households and these can be acted upon. This helps in building up newer strategies and targeted intervention with follow up evaluations for general or targeted populations. Objective: Purpose of this study is to assess ones' knowledge about food safety awareness and the practices regarding the maintenance of sanitation and hygienic conditions among the housewives of different socio-economic sectors. And also explain them the importance of food safety towards the health of an individual i.e., how improper handling of food can cause food borne illness and instruct them the proper method for food safety, i.e., how to maintain proper sanitation and hygiene. Method: A pre tested structured questionnaire was given to the housewives to determine their knowledge and attitudes and behaviors about importance of food safety. Total 500 housewives were interviewed via questionnaire method. Results indicated that many of the housewives lacked the basic knowledge on food sanitation and hygiene and only a few of the surveyed women actually practiced hygienic methods of purchase handling, storage and proper waste disposal. Result: It was observed that most of the housewives were aware of maintaining sanitation and hygiene in order to prevent food borne illness. But they didn't know the correct method of practicing food safety mmeasures. This indicated lack of basic knowledge.
***Conclusion:** Knowledge on food safety and importance of maintaining sanitation and hygiene are essential in ensuring the wellness of a family by preventing food borne illnesses.*
***Keywords:** sanitation and hygiene practices, knowledge about food safety, food borne illness.*

I. INTRODUUCTION AND REVIEW OF LITERATURE

Food safety, nutrition and food security are inextricably linked. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and sick.[1] Home cooked foods are considered to be safer than prepared foods brought from outside.[2,3] Water and sanitation are independently associated with improved growth of children.[4] Unimproved hygiene, inadequate sanitation and insufficient and unsafe drinking water accounts for 7% of the total disease burden and 19% of child mortality world wide.[5] Incidence of food borne diseases which is caused by microorganisms is considered as a main public health problem in various communities, and with regard to the fact that women are responsible for food cooking and they need to know comprehensive information about health and food safety.[6] In India most of the diarrhoeal death among children (<5) are attributed to food and water contamination. Mothers are usually the final line of defense against food borne illnesses.[7] Communicable diseases continue to be the major contributor to global morbidity and mortality. According to WHO estimates, 3.8 million children less than five die each year from diarrhea and acute respiratory tract
infections.[8] Safe drinking water, basic sanitation and hygiene is one of the prime concerns globally. Hand washing with soap is a cost effective way of reducing diarrhoeal disease. A substantial number women in India have lack of access to these basic facilities and poor practice of hand washing.[9] Lack of adequate sanitation, hygiene and safe potable water are serious global health problems that contribute to deaths of many children under the age of five years annually, mainly due to diarrhoeal diseases.[10] Approximately 1.5B episodes of diarrhea are reported every year in developing countries and this figure has remained more or less

©IJRASET: All Rights are Reserved

constant over the last 20 years.[11] Diarrhea can cause malnutrition, leading to impaired physical growth and cognitive development.[12] The levels of food contamination is related to the storage of foods at high ambient temperature for long periods of time. Unclean utensils we're also considered a source of food contamination.[13] The most common symptoms of food borne diseases are stomach pains, vomiting and diarrhea.[14] Improved conditions of sanitation and Hygiene practices are associated with reduced prevalence of stunting in rural India.[15]

II. AIMS AND OBJECTIVES

A. The objective of this survey was to study the awareness of food safety among the housewives of different socio-economic groups.

B. To assess the knowledge about various practicing methods for maintenance of sanitation and hygiene.

C. To spread awareness and educate the mothers about the importance of food safety and maintaining hygienic environment to prevent various food borne illnesses.

III. MATERIALS AND METHOD

A structured questionnaire was administered to different households to assess their awareness on food safety and hygienic practices. A total of 500 housewives were interviewed via questionnaire method.

The survey was conducted using oral questionnaire method. Questionnaires were distributed to all the housewives after explaining them the purpose of conducting the survey. They were also given a detailed explanation on how to fill the questionnaire and were assured about confidentiality of the contents. The data collected was on personal hygiene, cross contamination and sanitation. Information was obtained by face to face talk with the respondents. The questionnaire included demographic profile- age, educational qualification, family type, occupation, annual income, number of children in the family, a few questions about personal hygiene and food handling.

The responses were analysed using Microsoft excel and Google docs.

IV. RESULTS AND DISCUSSION

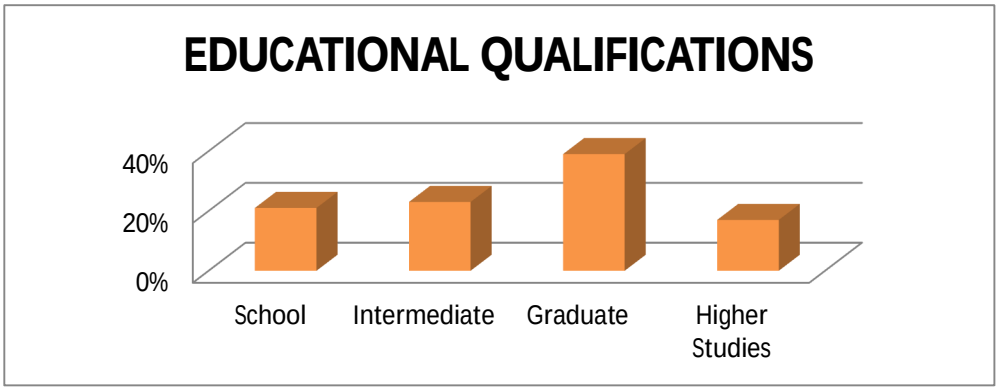
A. Demographic Profile

1) Age

Age Group	Percentage
a)18-25	15.60%
b)26-35	38.1%
c)36-50	39%
d)51 or more	7.56%

Of the total respondents 15.60% belonged to 18-25 age group, 38.1% to 26-35, 39% to 36-50 and 7.56% to 51 or more.

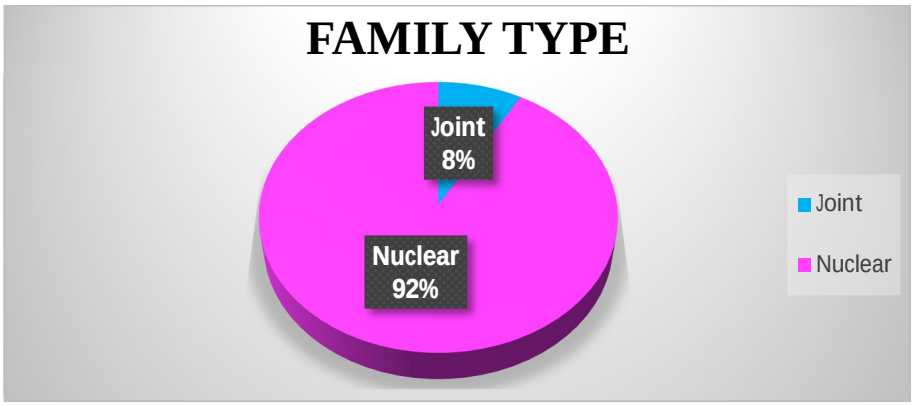
2) Educational Qualification



Of the total respondent women 21%studied up to tenth, 23% up to intermediate, 39% up to graduation and 17% up to higher studies indicating that most of the women are well educated.

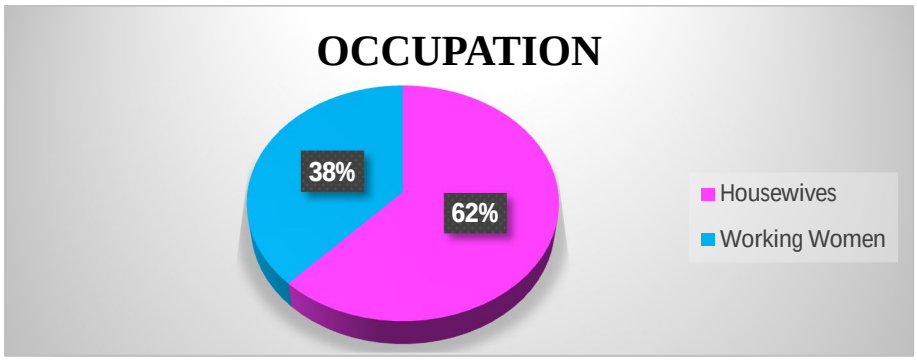
©IJRASET: All Rights are Reserved

3) Family Type



From the above data92% of the women had a nuclear family while 8% had a joint family.

4) Occupation



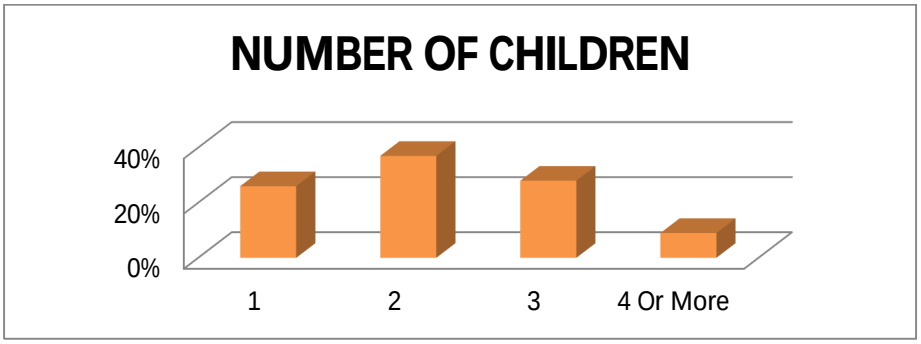
From the above data 62%of the respondent women were housewives and the rest 38% were working women.

5) Annual Income

Income	Percentage
a)less than 20,000	25%
b)20,000-50,000	32%
c)more than 50,000	43%

25% of women belonged to lower class, 32%to middle class and 43%to upper class.

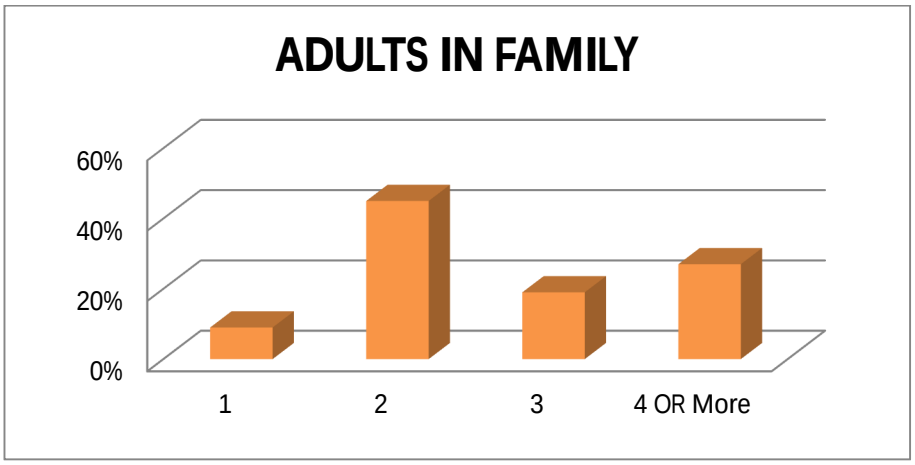
6) Number Of Children In Family



26%women had 1 child, 37% had 2 children, 28% had 3 children and 9%women had 4 or more children.

©IJRASET: All Rights are Reserved

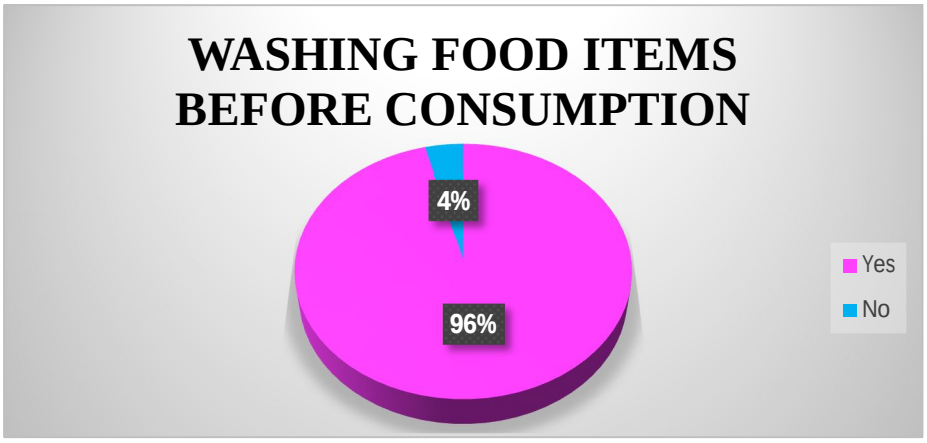
7) Number Of Adults In Family



9% respondents had 1 adult in their family, 45%- 2 adults, 19% -3 adults and 27%had 4 or more adults.

B. Personal Hygiene

1) Washing Of Food Items Before Consumption



96% of the women were aware of importance of washing food items before consumption while the rest 4% were unaware showing that most women were aware of the washing practice to avoid any infection.

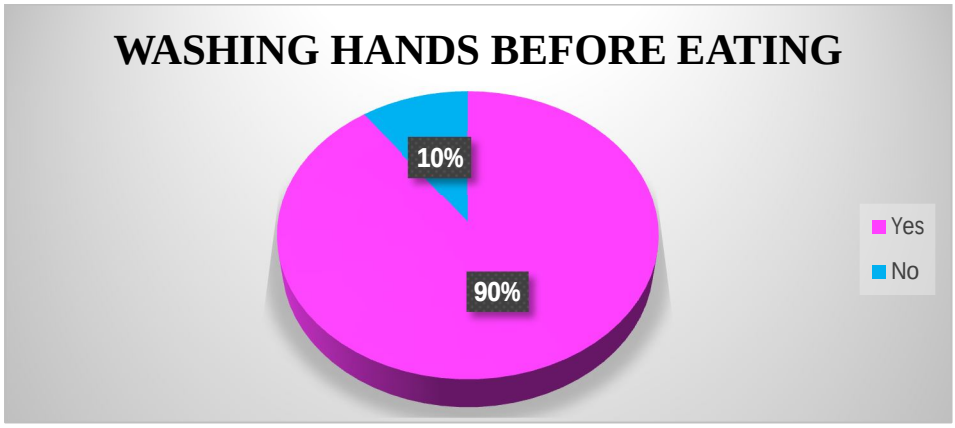
2) Hand Washing

Hand Washing	Percentage
a) Before and after eating food	5%
b) Before feeding children	2%
c) After using toilet	6%
d) All the above	87%

From the survey it was observed that 5% of respondents practiced hand washing before and after eating; 2% before feeding children; 6% after using toilet and 87% after all of these the importance of hand washing in every household .

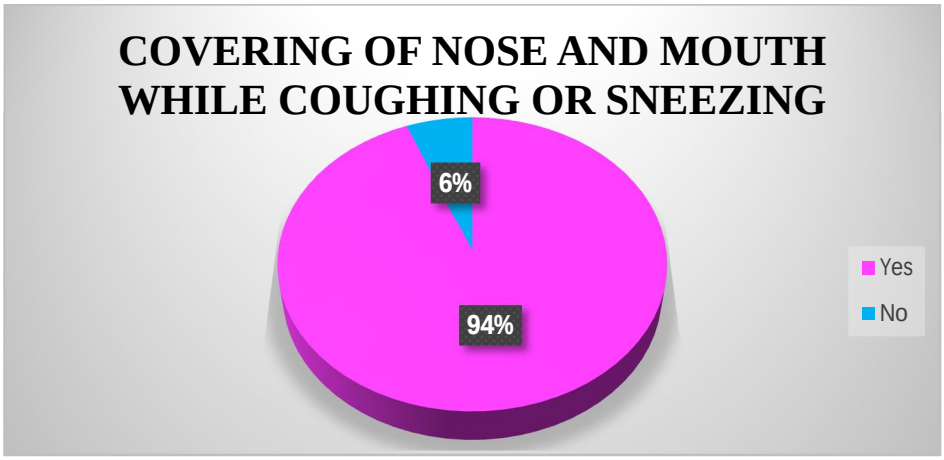
©IJRASET: All Rights are Reserved

3) Awareness On Washing Hands Before Preparing Meals



From the above survey 90% women knew the importance of hand washing before preparing meals and the remaining 10% did not indicating that most respondents were aware of importance of hand washing before preparing meal.

4) Importance Of Covering Your Nose And Mouth While Sneezing And Coughing



While 94% believed that covering mouth and nose would prevent diseases, 6% did not indicating most women were aware that covering the mouth and nose prevent the entry of microbes into food.

5) Awareness On Duration Of Hand Washing -20 Seconds

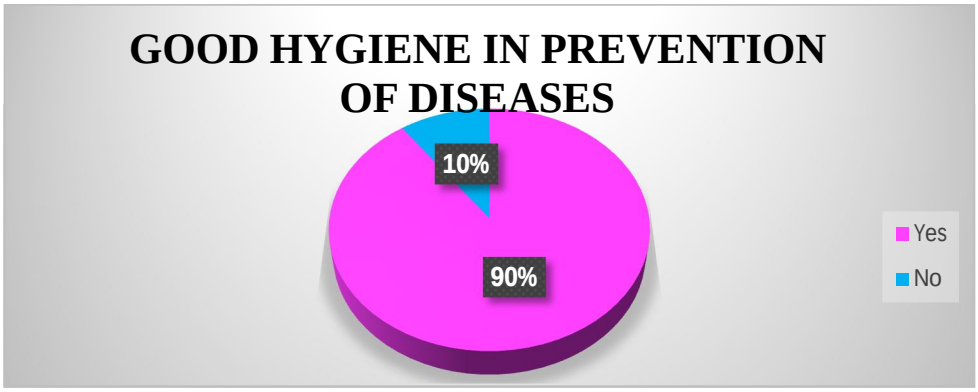


Around 42% of the surveyed respondents were aware of the correct hand washing duration and the rest 58% were not indicating need of awareness on duration of hand washing.

©IJRASET: All Rights are Reserved

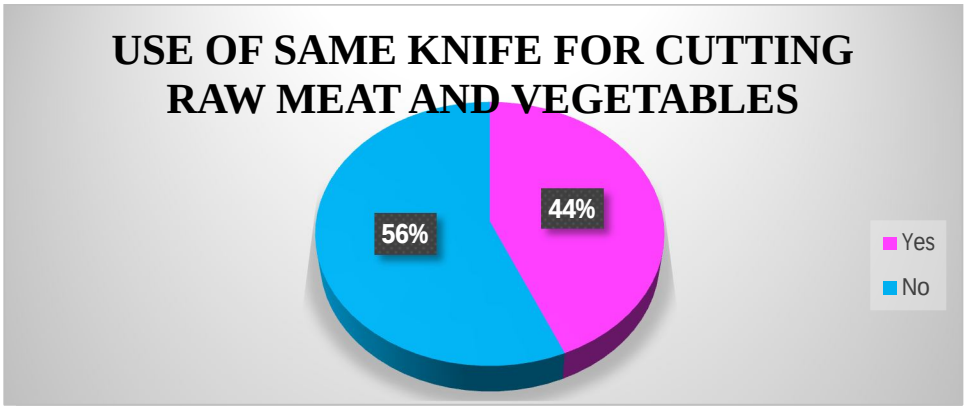
C. Cross Contamination, Prevention And Sanitation

1) Knowledge About Good Hygiene And Sanitation Practices Prevent Diseases



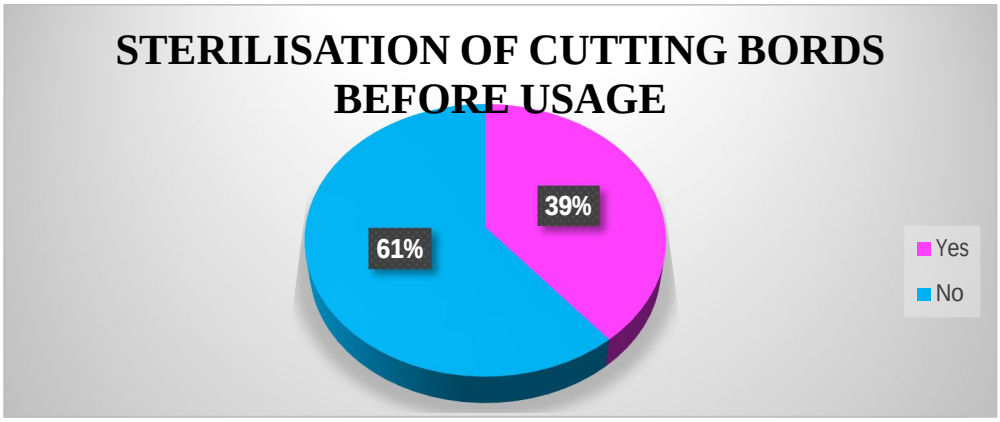
90% of the respondents believed that following good sanitary habits could effectively reduce the chances of attaining food borne Illnesses and the rest 10% didn't.

2) Use Of Same Knife To Cut Raw Meat And Vegetables



Also about the usage of same knife to cut vegetables and meat, 44% used the same knife and 56% used separate knives and chopping boards to chop them showing no awareness of women on the possible microbes that may be transferred from meat to vegetables.

3) Sterilization Of Cutting Boards Before Usage



About 39% respondents sterilized chopping boards before usage and the other 61% did not indicating lack of awareness on sterilization of cutting boards with warm water before usage.

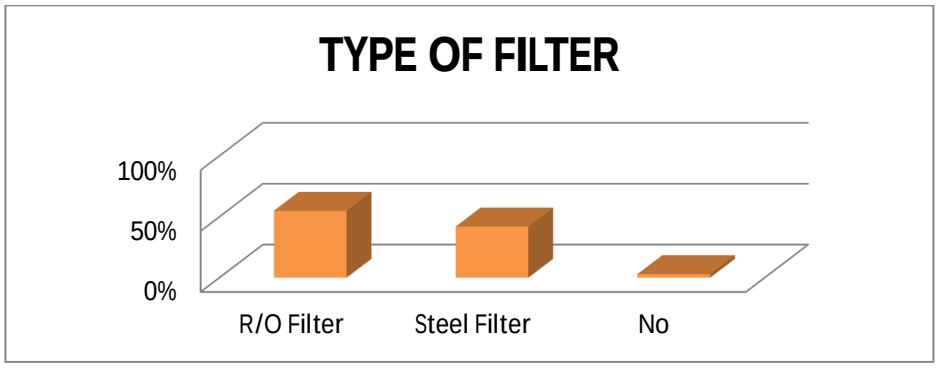
©IJRASET: All Rights are Reserved

4) Type Of Water Used For Cooking

Type Of Water	Percentage
a) Tap water	27%
b) Tap water after boiling	11%
c) Filtered water	53%
d) Packaged water	9%

27% of the surveyed women used tap water; 11% used boiled tap water; 53% used filtered water and the remaining 9% used packaged water for cooking purposes indicating importance of filtered water to prevent entry of microbes in daily consumed food.

5) Type of Filter



About 97% people use filter at home among which 55% use R/O filter and 42% use steal water filter, 3% people do not use filter at home indicating the importance of filtration to prevent water borne diseases.

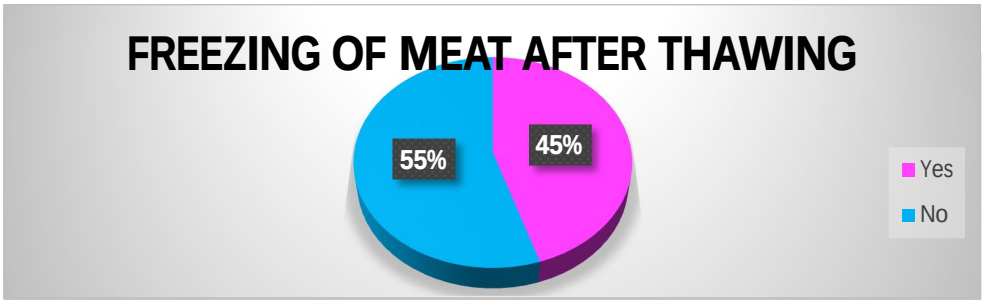
D. Food Handling

1) Thawing Frozen Food

Process	Percentage
a) In an open container	**28%**
b) In refrigerator	**20%**
c) In microwave	**12%**
d) Under running water	**40%**

About 28% families thaw food/meat in an open container, 20% in refrigerator, 12% in microwave and 40% under running water indicating most of the people are unaware of the best method is by using a refrigerator.

2) Freezing Of Meat After Thawing



From the data about 45% people refreeze the meat after thawing and 55% do not refreeze the meat after thawing indicating less knowledge of the growth of microbes are favored after thawing and refreezing.

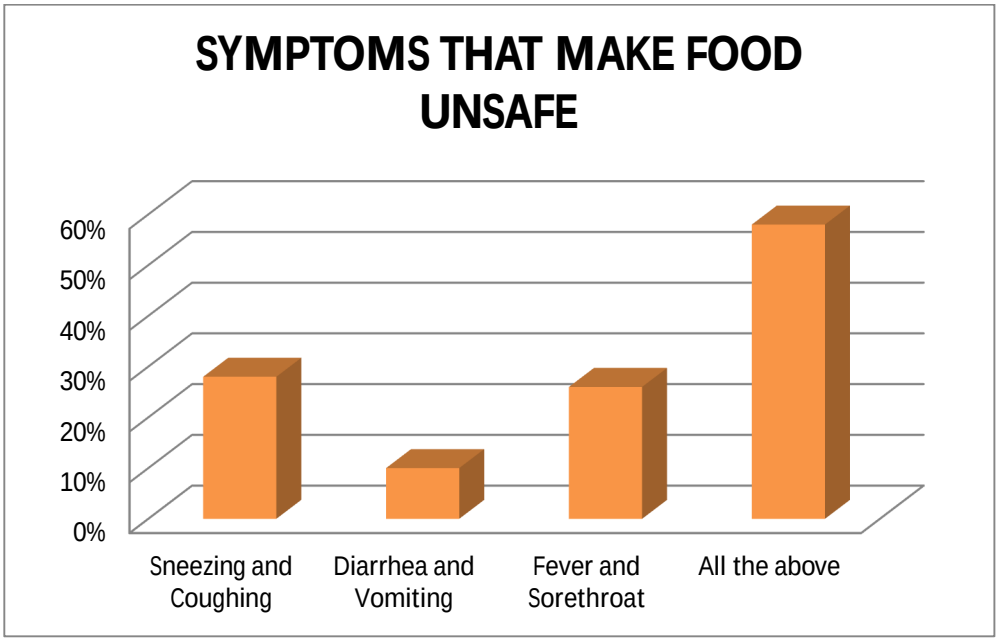
©IJRASET: All Rights are Reserved

3) Storage Of Leftover Foods

Storage	Percentage
a) Store leftover in refrigerator	72%
b) Store leftover in the deep freezer.	8%
c) Store leftover in open container	13%
d) Discard the leftover food	10%

About 72% women store leftover food in refrigerator, 8% store in deep freezer, 13% store in open container and 10% discard the leftover food indicating still lack of awareness on refrigerating leftover foods among women.

4) Symptoms That Make Food Unsafe For Consumption



About 28.4% people think that sneezing and coughing would affect the food safety, 13% think diarrhea and vomiting would affect food safety, 49% think fever and sore throat would affect food safety and about 53% think all these factors affect food safety implying that most women are aware of common modes of entry of microbes into the food.

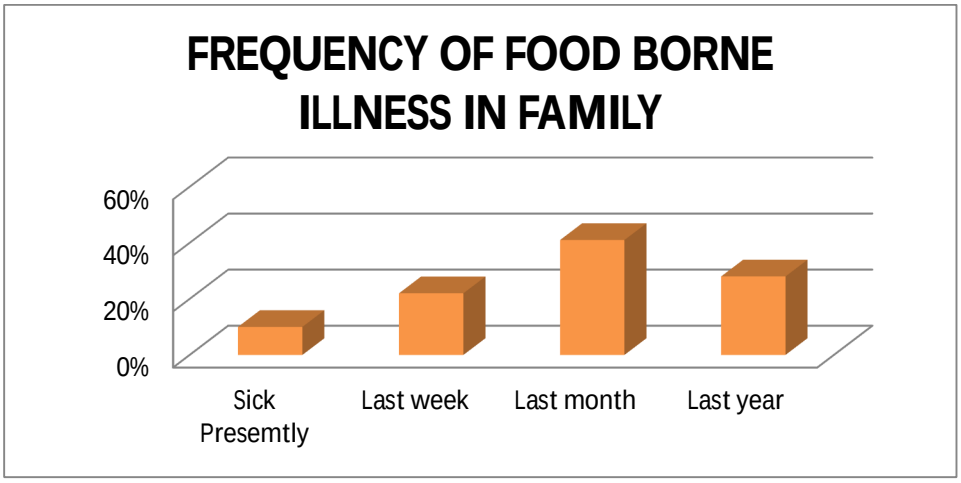
5) Symptoms of Food Borne Illness

VARIABLES	PERCENTAGE
a) Abdominal pain and diarrhea	29%
b) Nausea and vomiting	34%
c) Headache	2%
d) Coughing and sneezing	5%
e) All of the above	35%
f) Don't know	13%

About 29% people think abdominal pain and diarrhea are the symptoms of food borne illness, 34% think nausea and vomiting, 2% think headache as a symptom, 5% think coughing and sneezing ,35% think all these are the symptoms of a food borne illness and 13% are unaware of the symptoms .

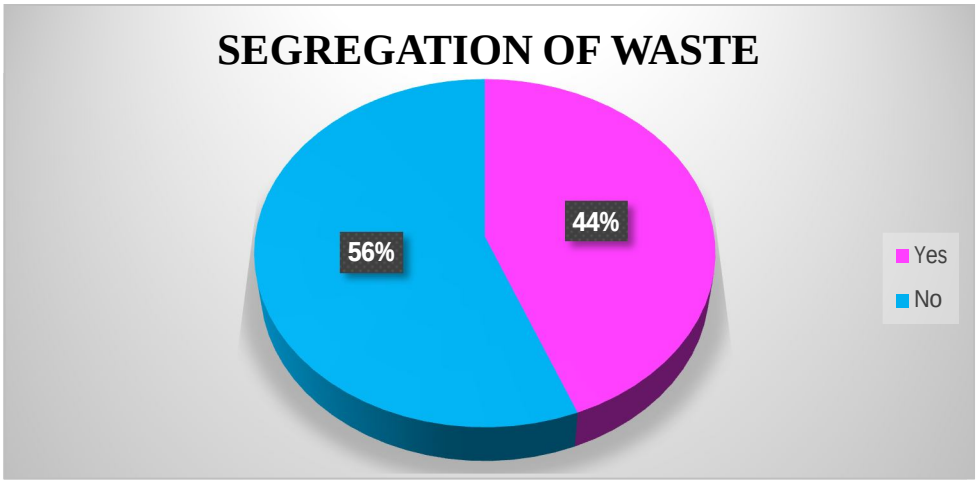
©IJRASET: All Rights are Reserved

6) Frequency of Food Borne Illness in Family



From the data about 10% people are sick presently, 22% were sick last week, 41% were sick last month and 28% were not sick in last 1 year implying that most women follow sanitary and safe habits to avoid water borne illness.

7) Segregation of waste (Dry and Wet)



About 44% families segregate their waste and 56% do not segregate their waste implying the lack of awareness on necessity of segregation of waste and that the wet waste can be used for making compost.

V. DISCUSSION

Form the above survey we are able to draw out various conclusions. From the above survey it is noted that most of the women had a nuclear family and belonged mostly to age group of 36-50and most of them were housewives. It was also seen that most of families had 2 adults and 2 children. Most of the women washed their food before consumption and most of them knew when it is important to wash the hands. Most of the women were unaware of the duration of washing hands. They knew that good hygiene and sanitation practices prevent diseases and the disadvantage of using the same knife for cutting raw meat and vegetables. On the contrary, most of the women were unaware of the necessity of sterilization of cutting boards before usage with hot water indicating the need of education. Most women used filtered water for cooking (using a r/o filter). They mostly used the method for thawing food under running water rather than in refrigerator which is beneficial. Most women knew the disadvantage of freezing meat after thawing would be hazardous. Most women knew the symptoms of food borne illnesses and what symptoms make the food unsafe for consumption. Most women were unaware of the segregation of waste is beneficial and the people in their family suffered from food borne illnesses only monthly. According to the survey, the housewives think that it is essential to conduct an educational program for the awareness on certain habits which are unknown to most women.

©IJRASET: All Rights are Reserved

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 8 Issue V May 2020- Available at www.ijraset.com

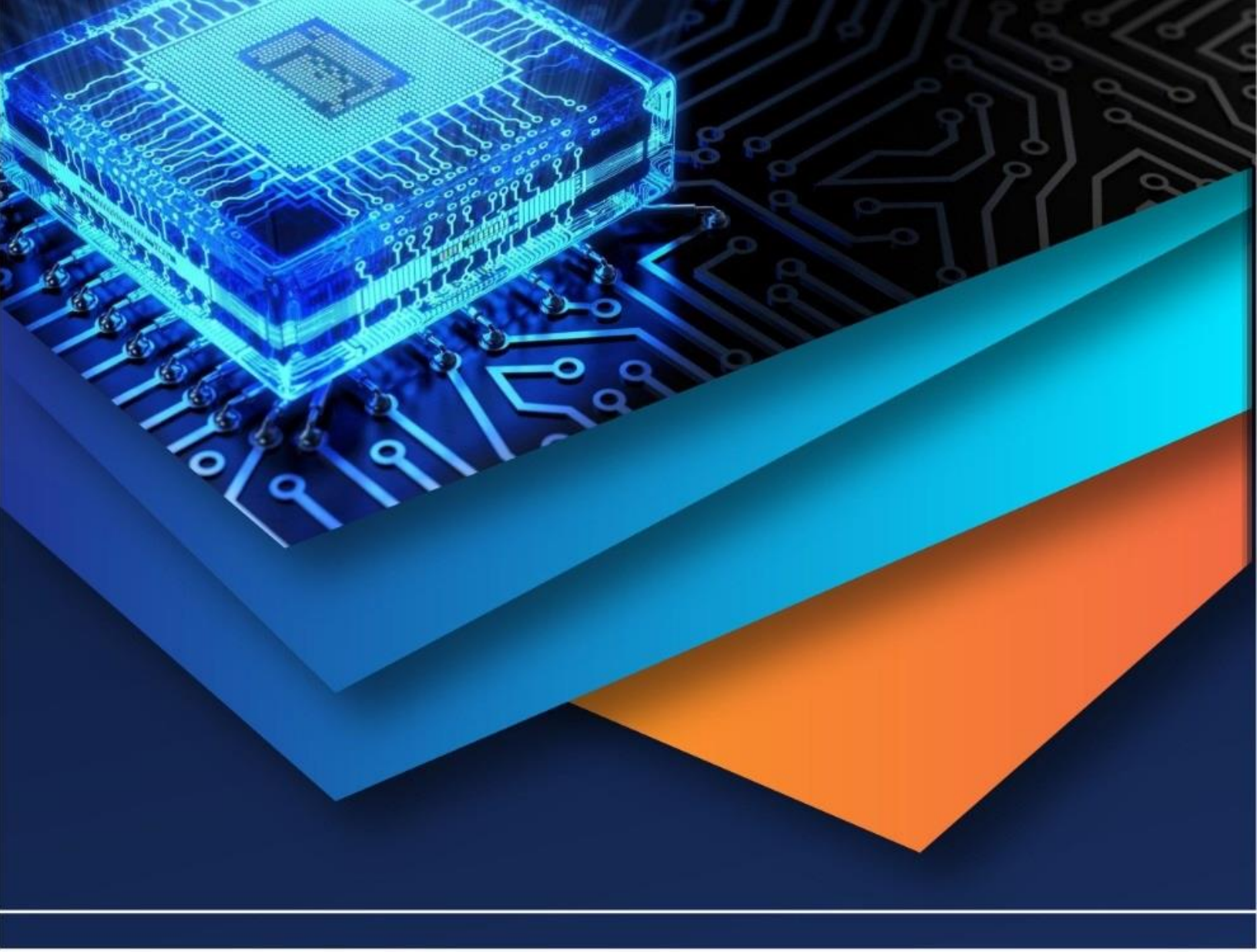
VI. CONCLUSION

Knowledge on food safety and importance of sanitation are essential in ensuring the wellness of a family and preventing food borne illnesses. Food sanitation and hygiene influence the health status and well- being of every individual. Maintaining proper hygiene like hand washing, washing fruits and vegetables before consumption and using boiled or filtered water for cooking become essential in attaining good health. Awareness on food safety and kitchen sanitation among housewives becomes very important in determining health of the entire family. It is the duty of every woman to adopt well sustainable sanitary practices in her house hold to safeguard the health of her family members. Emphasis must be laid on how the purchased food items are to be stored, cooked and protected from vectors that may lead to food borne illnesses. Hence, through awareness programs and demonstrations, the importance of food sanitation and hygiene must be taught to every woman in the interest of public health.

REFERENCES

[1] WHO, 4th June, 2019
[2] Appetite 49 (2), 441-449, 2007- Food safety knowledge, attitudes and practices of Mothers.
[3] Korean Journal of Food Preservation 16 (6), 999-1007, 2009.
[4] European Journal of Clinical Nutrition 57(12), 1562-1568, 2003.
[5] WHO, Geneva- 2008
[6] Journal of Research in Environmental Health 2(2), 137-145, 2016- Evaluation of Knowledge and attitudes of housewives about health and safety of food in Behshar city.
[7] Appetite 49 (2), 441-449, 2007- Food safety knowledge, attitudes and practices of Mothers.
[8] Murray CJ, Lopez AD, Global mortality, disability and the contribution of risk factors: Global burden of Disease Study, Lancet 1997.
[9] A study on Water Sanitation Hygiene and Hand washing Practices among Mothers nof under five Children- India, IOSRJDMS 15(7), 54-9, 2016.
[10] Journal of Community Health 37(6), 1185-1191, 2012: Changing Mother's Hygiene and sanitation Practices in Resource constrained communities.
[11] Food Borne Diseases in Developing Countries: International Journal of Environmental Health, 2003
[12] WHO, Geneva, 2007- Food safety and Food Borne Illness.
[13] International Journal of Food Microbiology 1987; 5:337-54
[14] WHO/FG Revilla- 2016, Facts on Food safety.
[15] BMJ open 5(2), e005180, 2015- Household Sanitation and Personal Hygiene Practices.

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)