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Assessment of knowledge, attitudes and practices regarding safe foods among rural women of Ayodhya district

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Abstract

A cross sectional study was conducted in the year 2018, to assess the knowledge, attitude and practices regarding safe foods among women of rural areas in Ayodhya district of Uttar Pradesh. The data was collected from 300 respondents in selected villages through pretested and predesigned questionnaire. Age groups of the respondents were between 18-50 years. Nearly 82.66% of the women were not aware of what are safe foods and its health consequences? A large majority (54.33) did not know about the adulteration and cross- contamination. Hygienic and sanitation practices regarding washing hands, washing vegetables, fruits and kitchen utensils were in improper way for most of the respondents. 39.33% women were consuming street foods two days in a week without any hesitation while 32.66 were taking four days in a week. Study reveal that a total of 70% population suffered once, twice and thrice in a year form any of the food borne illness symptoms out of this nausea, vomiting, diarrhea and typhoid were most common. However, some respondents (20%) agreed that typhoid fever and diarrhea are transmitted by foods. Study reveals that only 12.33% were always taking covered and safe drinking water. After this evaluation other diagnostic strategies become necessary to enhance this understanding. At domestic level cooking, food is handled by many individuals, thereby increasing the chances of food contamination due to improper handling. Deliberate or accidental contamination of food during production might endanger the health of family members, and have very expensive repercussions on a country.

Keywords: Knowledge, attitudes, practices

Introduction

Safe food and water is a public health requirement. Safety refers to all hazards that make food injurious to health. Food safety is intricately woven with food security and nutrition, while chronic food insecurity is associated with poverty and arises due to continuous inadequate diet, transient food insecurity is related to the risks related to the availability of food that is safe for human consumption. Foodborne diseases or food poisoning is defined as acute or subacute noninfectious diseases caused by biological or chemical agents that enter the body through ingestion of food. Food poisoning must be suspected when an acute illness with gastrointestinal or neurological manifestation affect two or more persons or animals who have shared a meal during 72 hours. The term generally used encompasses both food related infection or food related intoxication. The main causes of foodborne illness are bacteria (66%), chemicals (26%), virus (4%), parasites (4%). Foods get contaminated from plant surfaces, animals, water, sewage, air, soil or from food handlers during food handling and processing. In sum, there are over 250 infectious and non-infectious agents that may contaminate food and many recognized food vehicles. Thus, adding to the complexity of foodborne illness, foods can become contaminated at multiple points along the food's journey from production to consumption. Origin of foodborne illness the pathogenic organisms transmitted through contaminated foods are bacteria, viruses, protozoa and helminthes. Foods that are contaminated may not look, taste or smell any different from foods that are safe to eat. A review of recorded foodborne disease outbreaks in India from 1980 to 2016 shows *Staphylococcus aureus*, *Vibrio* species, *Salmonella* species, *E.coli*, *Yersinia enterocolitica*. *Salmonella* is the most common cause of foodborne illnesses while *Listeria monocytogenes* can even grow inside the refrigerator in ready to-eat food. *Staphylococcus aureus* bacteria grow in food and produce toxins that cause staphylococcal food poisoning. Food-borne diseases impose enormous financial burden on health care services, routine observations and public health investigations can cause substantial productivity impacts and product recalls by the food industry. Origin reconstruction is a complex problem because the effects of contaminated food typically occur with a significant time delay and incidence patterns are

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geographically unclear as some specific transport pathways are generally not monitored. Different foods implicated in foodborne outbreaks in India are milk and milk products such as kheer, meat, poultry, fish, fowl, buttermilk and sweets, sea food such as prawns; cooked and uncooked rice; tamarind, and cooked as well as uncooked vegetables.

This study is based on an overview of the knowledge, attitudes and practices of rural women regarding safe food consumption. The evaluation of knowledge, attitudes & practices are the first step to understand the food handler's point of view.

Methods and material

Rural areas of Ayodhya district were selected purposively for the present study. A few visits were made to the rural areas (Sarai dhanethi, Anjrauli and Parsawan) of the Ayodhya district to trace out the suitable respondents keeping in mind the objective of the study. A total of 300 rural women were selected by using simple random sampling technique. Primary tool used in the study was pre-designed and pre-tested questionnaire which consisted of general and specific information required for the study. Face to face personal interview method was employed to collect the data. Data was

collected from January, 2018 to June, 2018. Tabulation & calculated Percentages were used to represent the findings.

Results and Discussion

Table 1: Demographic characteristics of respondents

Variable		No. of respondents	Percentages (%)
Age	18- 28 years	78	26.00
	29-30 years	85	29.33
	31- 49 years	137	45.66
Sex	Female	300	100.0
Education	Illiterate	38	12.66
	Primary	112	37.33
	Secondary	95	31.66
	Graduate	39	13.00
	Post graduate	16	5.33
Occupation	House wife	210	70.00
	Teacher	17	5.66
	Farm women	52	17.33
	Other	21	7.00
Family income	Below 10,000	85	50.00
	10,000-20,000	126	30.00
	20,000-40000	44	20.00

Table 2: Distribution of respondents on the basis of their knowledge, attitude and practices

S. N.	Variable	No. of respondents	Percentage (%)
Knowledge of respondents regarding safe food			
1.	Yes	11	3.66
	No	248	82.66
	Partially knowledge	41	13.66
Knowledge of respondents regarding food adulteration/ cross- contamination			
2.	Yes	25	8.33
	No	163	54.33
	Partially knowledge	112	37.33
Awareness regarding food borne illness/food poisoning			
4.	Yes	15	5.00
	No	250	83.33
	Partially knowledge	35	11.66
Frequency of taking street food / fast food in a week			
5.	4 days in a week	98	32.66
	2 days in a week	118	39.33
	Never	6	2.00
	Occasionally	78	26.00
Frequency occurrence of below food borne diseases in a year (any member of family)			
6.	Diarrhoea	165	55.00
	Typhoid	37	12.33
	Nausea /vomiting	68	22.66
	Not, yet	30	10.00
Number of respondents who wash the hands before taking food			
7.	Sometimes	88	29.33
	Never	71	23.66
	Always	141	47.00
	Number of respondents who cut the vegetables before washing		
8.	Sometimes	168	56.00
	Never	89	29.66
	Always	43	14.33
Using running tap water for washing vegetables			
9.	Always	72	24.00
	Never	69	23.00
	Just dipped and strained the water	159	53.00
Used uncovered stored drinking water			
10.	Sometimes	149	49.66
	Never	37	12.33
	Always	114	38.00
Types of sanitizer used for washing kitchen utensils			
11.	Vim bar	183	61.00
	Detergent powder	69	23.00

	Ash	27	9.00
	Mud (mitti)	21	7.00
12.	Properly clean the food storage area before storing new food		
	Sometimes	132	44.00
	Always	55	18.33
	Don't care	113	37.66
14.	Knowledge about refrigerator temperature		
	Yes	17	5.66
	No	247	82.33
	Partially know	36	12.00
15.	Attitudes of respondents regarding whether they see the label on food packets and expiry date/mfg. date		
	Sometimes	31	10.33
	Never	68	22.66
	Always	17	5.66
	Try to see but don't understand	184	61.33
16.	Washing fruits before eating		
	Yes	153	51.00
	No	123	41.00
	Don't care sometimes	24	8.00
17.	Used without refrigerated leftovers		
	Sometimes	90	3.00
	Never	21	7.00
	Always	189	63.00
18.	Stored some foods without covering the pot while need proper covering		
	Sometimes	138	46.00
	Never	31	10.33
	Always	131	43.66

Majority of the respondents were between 31 - 49 years (45.66%). Female respondents were 100%. A total of 37.33 had primary education followed by secondary education (31.66). Majority of respondents were housewives followed by farm women (17.33). 50% respondents' family income was below Rs.10, 000/- month while 30% had family income between Rs.10, 000 to 20,000.

In this study, most of the respondents did not know about proper hygienic practices, cleaning and sanitation procedures. Almost all of the respondents were not aware of the critical role of general sanitary practices at home. Study reveal that 82.66% did not know what are safe foods? While 31.66% were aware but not had the sufficient knowledge.

Study reported that a large majority 54.33% did not know what are adulteration and cross- contaminations? But most of them aware of some common adulterants of milk, cereals, pulses and spices etc. On disease transmission through unsafe foods and unhygienic practices, the results indicates that 83.33% women did not know regarding the occurrences of food borne illness and their health consequences. 39.33% women were consuming street foods two days in a week without any hesitation while 32.66 were taking four days in a week. Study reveal that a total of 70% population suffered once, twice and thrice in a year form any of the food borne illness symptoms out of this nausea, vomiting, diarrhea and typhoid were most common. However, some respondents (20%) agreed that typhoid fever and diarrhea are transmitted by foods.

Existing knowledge about unsafe foods and its consequence were inadequate. Study showed that total of 32.66 respondents were not washing hands always before taking foods while only 47.33% were follow this always but remaining respondents were washing hand sometimes. Only 14.33% were always washing the vegetables before cutting. Running tap water for washing vegetables, only few of them were using. 53.00% women just dipped and drained the vegetables, which was not considered as in proper way.

A majority of respondents were taking unsafe and uncovered drinking water, only 12.33% always took the covered and safe

water. 61.00% women were using vim bar for washing kitchen utensils, only 18.33% women were always washing the storage area before storing the new foods whereas 37.0% did not care for the same. Study reveals that 17.66% women were using the refrigeration and they had partially awareness regarding the proper temperature for particular food. Regarding checking the labeling on food packets, a total of 61.33% were try to understand but they did not understand some parameters, while 10.33% women were able to and always read the labels. A total of 51.0% were aware of washing fruits before consuming while 41.0% women were not always washing the same. 63.0% women and their family members were always consuming the leftovers without having in proper storage condition.

Conclusions

In this study, respondents had insufficient knowledge on different issues related to food safety, attitudes and practices were in improper way which may be harmful for them. This result is supported by others whose report show that knowledge of critical temperatures were insufficient amongst food-handlers. After this evaluation other diagnostic strategies become necessary to enhance this understanding. At domestic level cooking, food is handled by many individuals, thereby increasing the chances of food contamination due to improper handling. Deliberate or accidental contamination of food during production might endanger the health of family members, and have very expensive repercussions on a country.

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