

A Study on the Awareness Levels of Consumers towards Food Adulteration in Nizamabad District of Telangana State

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Abstract

The menace of food adulteration has been a serious health threat throughout the world. The unfair businessmen are adding harmful substances to the food items with a view to maximize their profits and thus disturbing the nutritional value of the food items. This study is primarily taken up to explore the awareness of customers regarding adulteration of food products in Nizamabad town of Telangana state. And the literature on food adulteration is briefly reviewed. The required primary data has been gathered from the customers using simple random sampling method. Among 400 male customers and 300 female customers contacted for personal interview, only 369 male and 248 female customers came forward to express their opinions regarding the problem under study. The secondary data has been collected from some books and web sites. The study which was conducted in Nizamabad town of Telangana state found that the awareness about the food adulteration, adulterants, adulterated food items, food standards and the available controlling mechanism in the country is very low among the respondents. This study understands and recommends that there is an urgent need for a wide and aggressive campaign to create awareness about food adulteration in the study area in order to save the people from this dangerous evil.

Key Words: *Food adulteration—Nutritional value—Adulterants—Food standards—Aggressive campaign*

Introduction

Modern Indian eating habits are changing. People are habituated to eat street food, junk food, colored and attractive food, which is unsafe, impure and adulterated. No doubt, criminal cases are booked and the penalties are imposed to the fraudulent traders, but the food adulteration is growing day by day and the consumers are not paying attention to the quality of the food. This adulteration not only lowers the quality of the food but spoils the health of the people. The

ignorant behavior of the consumers towards the food quality is causing different known and unknown fatal diseases. According to a report issued by the Public Health Foundation of India, over 80 % of the premature deaths are due to the adulterated food in India. Many surveys suggest that more than half of the food items are adulterated intentionally. As per the research of WHO, around 600 million cases of food related diseases are happening annually around the world.

Harmful Effects of Food Adulteration

Each and every food item that is consumed by the people daily is more likely to have been adulterated by harmful and prohibited substances that cause health problems such as—insomnia, paralysis, kidney damage, blindness, dizziness, hypertension, muscle problems etc, making human life tough. The adulterated substances in the food items may result in toxicity in the human body and in the long run it will lead to death. Many adulterants in the body will have carcinogenic effect damaging different parts of the body.

The adulterants in the tea and coffee powder cause stomach disorder, diarrhea and joint pains. Addition of water and sugar content in the pure honey reduces the quality of the honey, causing embarrassing to the customers. The artificial colours added to the vegetables such as—Green chillies, Peas etc are very dangerous to the human health. Non-edible oils mixed in coconut oil and edible ground nut oil will lead to cardiovascular diseases and live disorders in the long run. The adulterants added to the food substances not only bring down the nutritional value in food items but causes many fatal diseases. The food colours added in excess to attract the attention of women and children, result in vomiting and allergies

The additives added to the food items for the purpose of food flavoring, food coloring and food preservation may have harmful effects on women's health. The growing health issues such as hormonal imbalance and menstruation related problems are because of the food adulteration.

Common Adulterants in Food Substances

S,No	Food item	Adulterants
1.	Milk	Detergents, Urea, Soya milk, Starch, Synthetic milk
	Sweets	Tar dye, Metanil yellow, Muriatic acid, Lead nitrate
3	Honey	Molasses, Sugar, sugar solution
4	Spices	Soap stone

5	Chilli powder	Brick powder, Sudan red
6	Icecream	Peppernil, Ethylacetate, Washing powder,Meatnil yellow
7	Dal	Metanil Yellow
8	Ghee	Vanaspathi,vegetable oils,mashed potatoes
9	Jaggery	Sulpher dioxide,Sodium hydrosuphite
10	Turmeric powder	Yellow aniline dyes, Metanil yellow
11	Tomato sauce	Pumpkin pulp, Non-edible dyes
12	Saffron	Tendrils of maize
13	Chocolates	Vegetable fat
14	Fruits	Calcium Carbide, Copper sulphate
15	Noodles, Macaroni	Monosodium Glutamate
16	Green Peas	Malachite green color
17	Asafoetida	Soap stone, Foreign resin
18	Paneer	Starch
19	Vegetables	Copper sulphate, Oxytocin, Wax, Calcium carbonate

Source: Compiled by the author

Review of Literature

Adulteration of food items in India has been a major and hidden menace for years. Many medial and non-medical researchers have undertaken many studies on food adulteration and suggested accordingly. According to World Health Organization, access to sufficient amounts of safe and nutritious food is key to sustaining life and promoting good health. Unsafe food containing harmful bacteria, viruses, parasites or chemical substances, causes more than 200 diseases – ranging from diarrhoea to cancers. An estimated 600 million – almost 1 in 10 people in the world – fall ill after eating contaminated food and 420 000 die every year, resulting in the loss of 33 million healthy life years (DALYs).

Starting from the indiscriminate use of pesticides and chemical fertilizers, followed by adulteration and the use of sub-standard products, food safety remains a distant dream in India (www.tribuneindia.com). According to Jonathan Rees (2020) the dishonest sellers can adulterate food at any point along the supply chain so that they can pocket the price difference between the adulterant and unadulterated food they leave out.

According to R.K. Guptha et. al (2017), the food adulteration is a global economic problem which is comparable with organized crime. Food can be made unsafe intentionally through widespread practice of food adulteration for financial gains. In India the incidents of food adulteration can be traced back to the times of Kautilya(Chanakya) in the 4 th century B.C. Elaborate strict laws, regulations and procedures were evolved by Kautilya to ensure protection of the king from any poisoning attempts through royal kitchen.

And Around 68.7 per cent of milk and milk products sold in the country is not as per the standards laid down by the Food Safety and Standards Authority of India (FSSAI) (www.economic times.com)

It is unfortunate to learn that as per the study by George Institute for Global Health, India has the least healthy packaged food in the world.(www.georgeinstitute.org).

Objectives of The Study

- To review the literature of food adulteration
- To explore the awareness of people regarding adulteration in food items
- To offer suggestions to curb the food adulteration

Study Area Nizamabad town in Telangana state

Research Methodology

The exploratory research design is adopted in this study to work as per the set objectives.

Sampling

Sample Unit: Since the study is directly related to the final consumers, every consumer of food products can be treated as a sample unit

Sample Size: 369 male customers

248 female customers

Sample Area: Nizamabad town in Telangana state

Sample Type: Simple Random Sampling

Data Collection

Data Type: Primary and secondary data are used to arrive at the conclusions based on the objectives.

Data Collection Tool

In this study the primary data has been gathered using personal interview technique. The secondary data has been collected from various book, magazines, journals etc.

Results and Discussion

TABLE:1 Distribution Of Respondents according to Gender

S.no	Gender	No. of respondents	Percentage
1	Male	369	60 %
2	Female	248	40%
	Total	617	100

Source: Primary data

The results from the above table indicate that out of the total sample size of the study, 60 % are male and 40 % are female respondents. All most equal number of male and female gave their opinions about the awareness on food adulteration in the study area Nizamabad town in Telangana state.

Table:2 Distribution of Respondents according to Age

S.no	Age	No. of Respondents		Percentage	
		Male	Female	Male	Female
1	Less than 20 years	57	34	15	14
2	More than 20 yrs and less than 50 yrs	189	122	51	49
3	More than 50 years and less than 60 yrs	58	62	16	25
4	More than 60 years	65	30	18	12
	Total	369	248	100	100

Source: Primary data

The above table makes it clear that the majority of respondents both male and female in this study belong to the age group between 20 and 50 years. A very less number of respondents belong to the category of more than 60 years of age.

Table:3 Distribution of respondents according to awareness of food adulteration

S.no	Response	No. of respondents		Percentage	
		Male	female	Male	Female
1	Yes	274	135	74	54
2	No	95	113	26	46
	Total	369	248	100	100

Source: Primary data

The above table indicates that nearly $\frac{3}{4}$ th of the male respondents are aware of the adulteration in food stuff in the study area. And half of the female respondents are aware of food adulteration.

Table:4 Distribution of Respondents according to the responses regarding the products adulterated mostly

S.no	Response	No. of Respondents		Percentage	
		Male	Female	Male	Female
1	Oils	131	98	35	40
2	Spices	34	17	09	07
3	Dairy products	87	43	24	17
4	Salt and Mirchi powder	117	90	32	36
	Total	369	248	100	100

Source: Primary data

The above table reveals that the majority of both male and female respondents believe that oils are the most adulterated food items, followed by salt and mirchi powder. Among all the respondents, very small number of respondents opined that the spices are being adulterated.

Table: 5 Distribution of respondents according to the responses regarding the motive for adulteration

S.no	Motive	No. of respondents		Percentage	
		Male	Female	Male	Female
1	Sales maximization	143	110	39	44
2	Profit maximization	176	125	48	51
3	Gain market position	50	13	13	5
	Total	369	248	100	100

Source: Primary data

The above table shows that the respondents opine that the motive for doing food adulteration is profit maximization and sales maximization. Nearly half of the respondents in both the male and female categories think that the traders involve in adulteration for the sake of profit maximization. Very less number of respondents believes that gaining market position is also one of the reasons for adulteration of food products in the study area.

Table: 6 Distribution of respondents according to the responses regarding the Awareness of food standards like—FSSAI, AGMARK, FPO etc

S.No	Response	No. of respondents		Percentage	
		Male	Female	Male	Female
1	Yes	143	34	39	14
2	No	226	214	61	86
	Total	369	248	100	100

Source: Primary data

The above table exhibits that less than 40 % male and only 14 % female respondents are aware of food standards such as- FSSAI, AGMARK, FPO etc. This indicates that the majority of the people seem to be not aware of food standards in the study area.

Table:7 Distribution of respondents according to the Knowledge about available controlling mechanism for adulteration in the central and state level

S.no	Knowledge possession	No. of respondents		Percentage	
		Male	Female	Male	Female
1	Yes	153	53	41	21
2	No	216	195	59	79
	Total	369	248	100	100

Source: Primary data

The above table indicates that less than half (50%) of the male respondents and less than quarter (25%) of the respondents have knowledge about the monitoring mechanism available for food adulteration in the state of Telangana and India. This shows a need for aggressive campaign to creative awareness among the people about government activities regarding controlling the food adulteration.

Findings of the Study

The 75 % male respondents and 54% of female respondents are aware of food adulteration in the study area, indicating a serious need to campaign about food adulteration and its ill effects of human health.

The oils used in the preparation of food items in the study area have been found to be adulterated mostly. It is because of the comparison of the prices of filtered oils and the raw material (groundnut) used in the preparation of oils. The consumers may have a doubt that when the prices of raw groundnut is high how come the filtered groundnut oil available at low prices? The salt and red chilli powder was perceived to have been adulterated highly after filtered oils.

The majority of the customers perceive that maximization of profit followed by maximization of sales may be the prime reason behind adulteration of food products.

It has been found that the customers are not well aware of the food standards such as—FSSAI, AGMARK, and FPO etc.

It is very much sad to have found that the awareness levels about the availability of monitoring and controlling mechanism for food adulteration in the state of Telangana and India is very much low.

Recommendations

- 1) Since the awareness levels are low regarding the food adulteration, an aggressive campaign to create awareness about the food adulteration is desperately needed in the study area. The people of all ages, genders, educational qualifications and professions should be made aware of the ill effects of adulterated food products.
- 2) A comprehensive list of food items and the corresponding adulterants should be circulated widely among the customers.
- 3) The customers should be educated about the Food Safety and Standards Act (FSS ACT), 2006, that consolidates various acts such as--Prevention of Food Adulteration Act, 1954, Fruit products Order, 1955, Meat Food Products Order, 1973, Vegetable Oil Products (Control) Order, 1947, Edible Oils Packaging (Regulation) Order 1988, Milk and Milk Products Order, 1992.
- 4) Since there is a very less awareness about the availability of controlling mechanism against adulteration of food, an aggressive campaign educating the customers about the consumer complaint against adulteration of food need to be taken up immediately. And the consumers should be taught about the issues against which the complaints can be lodged by the customers.
- 5) The state government should enact a law making it compulsory for every retail seller of food items to display a board stating the issues against which the customers can lodge a complaint. The customers should be informed about the issues of complaint such as--Sale of expired food items Dust, insects, worms or fungus on food, any form of adulteration, Incorrect packing, Incomplete/ insufficient/improper information on food label , misleading commercials, no address of maker/ marketer , no list of harmful ingredients like MSG, lack of warnings etc.

Conclusion

The problem of food adulteration has been rampant across India. This study found that the awareness of food adulteration among the people in Nizamabad town of Telangana state is very low. The food products such as filtered oils, spices, red chilli powder, salt, pickles, vegetables, fruits and many more items are being adulterated but the people are unaware of the food standards and the controlling mechanism to curb the menace of food adulteration. The state government and the central government should device a plan to create awareness among the people about the food adulteration, adulterants, food standards and the process of lodging a complaint against adulteration of food products. And there is a need for societal revolution against the menace of food adulteration in India.

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