



# ASSESSMENT OF AWARENESSES LEVEL OF FEMALE HOMEMAKERS REGARDING FOOD ADULTERATION IN ALIGARH CITY

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**Abstract:** In India, women are seen as a key element in raising consumer awareness. They have the capacity to sway anyone's purchase decision, whether they are from the village or the city. If they are working, they have greater practical and market expertise than a housewife, whether they are highly qualified or less educated. The research will also uncover the role of women in influencing family and societal purchasing decisions. In India, food adulteration is a widespread occurrence. It refers to both the purposeful adulteration of food to improve texture and consistency, as well as the distribution of substandard food. A foodborne illness outbreak is the most common result. A total of 100 female homemakers from Aligarh city (civil lines) participated in this study.

**Key words:** Consumer awareness, Food Adulteration, Homemakers

## BACKGROUND

Food is the most basic requirement for all living beings to thrive. Every citizen has the right to eat clean, safe, and nutritious food. Adulteration is the process of lowering a product's quality or character by adding a foreign or inferior ingredient and removing a key component. And it shows up as stomach problems, giddiness, and joint pain, diarrhoea, liver problems, dropsy, gastrointestinal problems, respiratory distress, oedema, and cardiac arrest, glaucoma carcinogenic consequences, paralysis, and so on. Food adulteration has been a

problem for a long time. It comprises a number of strategies such as concealing the condition of the product, selling decomposing food, misbranding or falsifying labelling, and introducing toxicants. For the consumer, adulteration has two disadvantages: first, he pays more for lower-quality meals, and second, some forms of adulteration are damaging to one's health. Consumer rights must be understood by women. Consumers, particularly women, need safe and fair financial services since product makers may provide them poor, expensive, hazardous, or useless products in some cases.

## I. INTRODUCTION

*“Women have been called queens a long time, but the kingdom given them isn't worth ruling” --Louisa May Alcott*

Consumer Awareness: The importance of consumer empowerment has long been acknowledged around the world. The consumer's level of awareness can be used as a barometer of a country's progress. "Consumerism" refers to consumers' self-effort in order to protect themselves. When a consumer first joins the market, it is difficult for him or her to purchase things. As a result, consumers must be aware of their legal rights before, during, and after purchases. It's difficult to say how many people in poor nations like India are aware of their consumer rights because rights are often overlooked or taken for granted. Today's customer has changed dramatically as a result of liberalisation and globalisation, as well as a larger push toward privatisation, as well as enhanced knowledge due to improved access to information and media exposure. However, despite greatest attempts, a consumer may experience numerous issues over the course of consumption. Despite several provisions in various enactments providing for consumer protection and stern action against adulterated and sub-standard items, little progress in the field of consumer protection has been made. There is an urgent and growing need to educate and motivate consumers in regards to product quality. In summary, customers should be empowered in terms of their consumer rights. They should be provided with the ability to be cautious and discerning in order to protect themselves from any trading malpractice. This is critical in spreading consumer knowledge to women, who are more prone to trader exploitation. This research focuses on the level of consumer awareness among women in Aligarh (City).

According to *Dian Marieczild*; *“A woman is the full circle. Within her is the power to create, nurture and transform.”*

1.1 History: Frederick Accum, a German chemist, was the first to investigate adulteration when he identified numerous harmful metal clonings in food and drink in 1820. Food suppliers were enraged by his efforts, and a scandal surrounding his alleged mutilation of the book "The Royal Institution Library" eventually brought him down. In early 1850, Hill Hassel, a physician and author, published extensive research in the Lancet and the Led.

1.2 Food Adulteration: Adulteration is defined as the fraudulent insertion of another's ingredient to boost a drug's selling or profit. Adulteration is a term that refers to the deterioration of various foods, pharmaceuticals, and other things as a result of merging them with low-cost, inferior components.

1.3 Causes of Food Adulteration: In India, food adulteration is a common practise among merchants. It poses a serious threat to human health. Adulteration of food is all too rampant these days, and nearly no food is safe. Adulterants can infiltrate the food supply through agricultural stages that haven't been adequately cleansed. Adulterants include stones, leaves, soil, sand, and dust, to name a few. They may be cleaned by the consumer, making them less harmful. Other adulterants that are purposely added are either invisible or blend in with the beverage's colour or texture. They are generally harmful to one's health, and the majority of them result in significant health problems like cancer.

#### 1.4 Types of Food Adulteration

- a) Intentional Adulteration: This is a sort of adulteration in which a food item is tampered with on purpose. It is done to increase the content of key nutrients after reducing a particular quantity to increase profit margins by utilising chemicals and other substances.
- b) Incidental adulteration: Inadequate hygienic conditions for food and beverages from the production site to the table of consumption produce incidental adulteration. Examples include pesticide residues, rat droppings, larvae in meals, and other unintentional adulterants.

## II. OBJECTIVES

To assess awareness level amongst women homemakers regarding food adulteration, consumer's rights and responsibilities.

## III. SIGNIFICANCE

Women, as the primary purchasers of products, are an essential segment of society to be aware of consumerism. As a result, the current study is critical in determining the important elements influencing consumer awareness among Aligarh City's women homemakers. The findings might be used to inform policy decisions aimed at increasing women's consumer knowledge, which would benefit them not only personally but also the entire country. Because women's consumer awareness not only protects people from harmful food products and diseases, but it also saves money, which has a direct impact on a country's economy.

### III. LITERATURE REVIEW

[1] Murali D, and Kulkarm M.S, (1990) in the study of “Housewives Regarding Food Adulteration”. A housewife's primary task was to ensure the family's well health by providing nutritious food. They also recommended acquiring food from reputable stores to avoid food adulteration. People need to be taught about the dangers of food adulteration.

[2] Gupta and Panchal (2009) in their study on the extent of awareness and food adulteration detection in selected food items purchased by homemakers, found that education, family income, and occupation are all key factors that influence food adulteration awareness, with overall education having the greatest impact.

[3] Thakur et al. (2009) conducted a study on the Impact of health education package on knowledge and practices of women regarding food adulteration. The adulteration was known by 52.00 percent of the individuals, and 15.00 percent of them claimed to have experienced it. The majority of the subjects (80.00%) were aware that water could be used as an adulterant, and one-third were aware that starch could be used as a milk adulterant. During the pre-test, 57.00 percent of the subjects were able to identify stone and twigs as a common adulterant of pulses, and one-third of them even identified Makki ka Atta as an adulterant in Basin.

[4] According to “Food adulteration and practices in urban area of Varanasi” (September 2010). Young people make up the majority of those present, and they are largely involved in purchasing food ingredients rather than actually handling them. The majority of them choose to buy it from the stockiest. The majority of people discovered all types of adulterations in cereals and noticed them by looking at the cereals' external features, while the rest discovered cereal adulteration after cooking or during the washing of cereals right before cooking. The majority of persons admitted that they had never filed a complaint against the shopkeeper and that they had never taken any action against him. The majority learned about it from television or the newspaper, while the rest (11%) learned from individuals, and the remaining 4% learned from other means. They grew up watching the TV show "JAGO GRAHAK JAGO" and are familiar with ISI , FAO and AGMARK food standards.

[5] Consumer awareness a study was conducted in Tamil Nadu among 529 randomly selected house holders (2011). The majority of the respondents were aware of the damaged food items, according to the results. The majority of those respond had no idea what the proper refrigerator temperature was. The study discovered that there was no significant variation in food safety knowledge among consumers of various educational levels.

[6] Abid Faheem et al. (2013) conducted a study on family's knowledge on Food Adulteration in the selected village of Udupi Taluk, Karnataka, India and surveyed about 75 families. The majority of the individuals (60.00 percent) had a moderate understanding of food adulteration, according to the data. They discovered a link between respondents' age and educational status and their knowledge score on food adulteration.

[7] Prasanti (2014) did a surveillance of quality and adulteration of milk sold in and around Hyderabad and its public health significance. Adult women had higher awareness of chemical and microbiological quality, milk borne diseases, adulterants, synthetic milk, thickening agents, preservatives, neutralizers, and heat effect than adult men, and it was highest among those with a high level of education, followed by those with a middle level of education, and lowest among those with illiteracy.

[8] In South India, another study with 123 participants was conducted (2014). Despite the fact that the majority of respondents (91.7%) and (84.9%) were aware of the use of food preservatives and flavouring chemicals, their knowledge was insufficient. The participants were separated into three groups based on their preservative awareness: good (37.4), satisfactory (40.6), and poor (22), as well as additives (percent): good (49.6), satisfactory (36), and poor (22). (22). (14). A gap between knowledge and practise has been discovered.

[9] Dhanvijay and Ambedkar (2015). It was determined that 100.00 percent of respondents were aware that milk is polluted with water and grains with dirt grits and stones before the education programme. Adulteration of urea to milk, colorants to spices, roasted nuts and pulses, and old tea leaves to tea were all discovered to be common. Common food adulterants such as milk products, ghee, sago, and coffee were found to be less well-known by respondents (1.00 percent to 27.00 percent).

[10] Nagvanshi (2015) conducted a study on common food adulterants and knowledge about adulteration among women of Rae Bareli District. Only 72.00 percent of respondents were aware of food adulteration, and the rest had no notion what the maximum level of adulterants may be. The majority of the participants are aware of the AGMARK certification, but not of the disorders linked to food adulteration.

[11] According to "Extent of awareness and prevalence of adulteration in selected food items in rural Dehradun" (2016) Housewives purchased food for the home in 59.3 percent of homes. In some food items, the prevalence of adulteration ranged from 17.3 percent to 66.2 percent. 54.3 percent of people bought loose stuff. 86.3 percent of people did not read the food labels on packaged foods. Literates (57.312.3) had the highest mean percentage of purity compared to illiterates and those with only a primary education.

[12] Joshi et al., (2017) conducted a study on Awareness Regarding Food Safety and Consumer Protection amongst the Women of Dantiwada Village, Gujarat. According to the findings, around 60.00 percent of

women had concerns about common food adulterants, and approximately 45.00 percent were aware that food adulteration is damaging to their health. Approximately 62.50 percent of women agreed that food adulteration occurs frequently in their lives. In comparison to uneducated women, literate women were also shown to be more aware. level of awareness The impact of electronic media on women's awareness was greater than that of print media.

#### IV. RESEARCH METHODOLOGY

Sample Locale: Civil lines area of Aligarh city. Sample size: It includes 100 women homemakers. Sample Profile: The sample belongs to women homemakers of age 25 to 35 years (literate/Illiterate). Tools and techniques used: Data Collection • The primary data was collected using a self designed questionnaire consisting of 24 questions. • The secondary data was collected by using books, e-books, journals and magazines. Data Analysis: The data was analysed by using percentage method,  $\text{Percentage} = \frac{\text{No. of participants}}{\text{Total no of participants}} \times 100$ . Data presentation The data was presented by using Tabular form, pie chart and bar graphs.

#### V. RESULTS AND DISCUSSION

A total number of 100 women Homemaker participated in this survey and attempt the questionnaire. Among them 85% women are educated and 15% are Illiterate or lower literate. The results of the survey are represented in the Tabular form and pie chart corresponding to each question are given below.

##### 1) Food preferences because of:

Table-1

| Options            | Quality | Quantity | Cost | None | Total |
|--------------------|---------|----------|------|------|-------|
| No. Of respondents | 26      | 32       | 42   | 0    | 100   |
| Percentage         | 26%     | 32%      | 42%  | 0%   | 100%  |

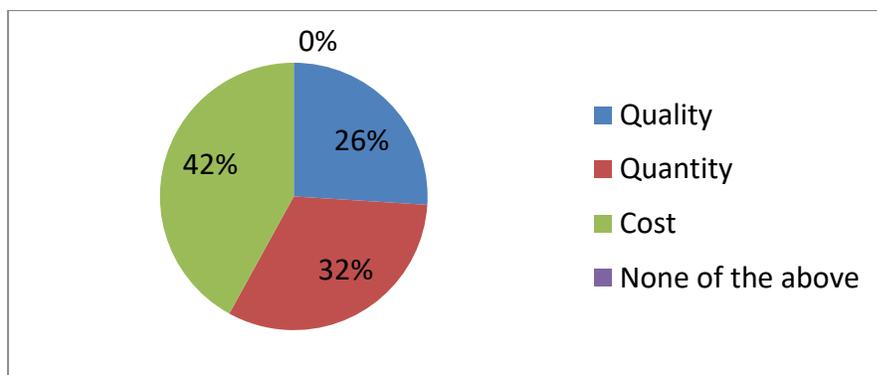


Figure-1

2) Knowledge of Food Adulteration:

Table-2

| Options            | Yes  | No | Total |
|--------------------|------|----|-------|
| No. of respondents | 100  | 0  | 100   |
| Percentage         | 100% | 0% | 100%  |

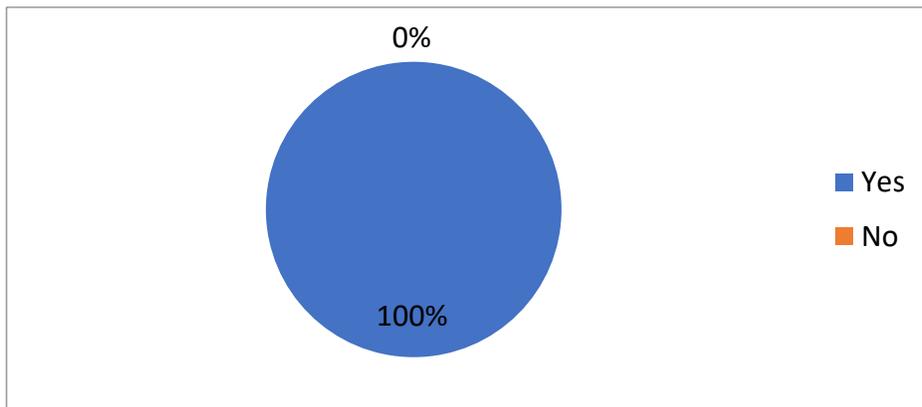


Figure-2

3) Source of information about food adulteration:

Table-3

| Options            | Newspaper | Television | Internet | Family and Friends | Total |
|--------------------|-----------|------------|----------|--------------------|-------|
| No. of respondents | 63        | 28         | 7        | 2                  | 100   |
| Percentage         | 63%       | 28%        | 7%       | 2%                 | 100%  |

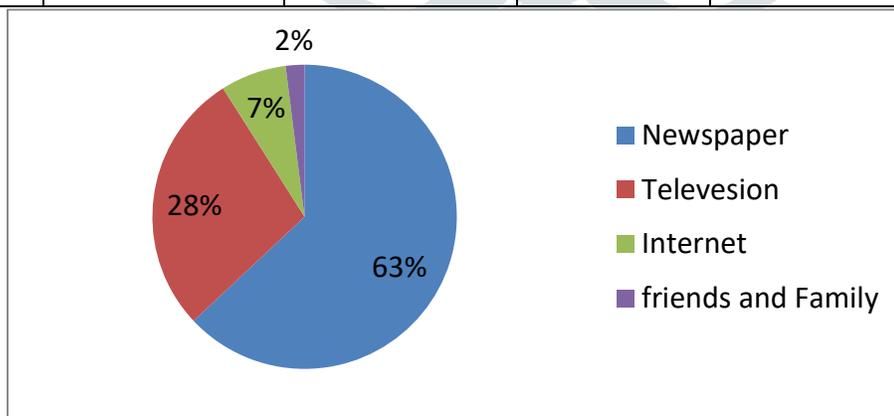


Figure-3

## 4) Common food adulterants they know about:

Table-4

| Options            | Water | Artificial colours | Bricks, dust and pebbles | All | Total |
|--------------------|-------|--------------------|--------------------------|-----|-------|
| No. Of respondents | 27    | 3                  | 3                        | 67  | 100   |
| Percentage         | 27%   | 3%                 | 3%                       | 67% | 100%  |

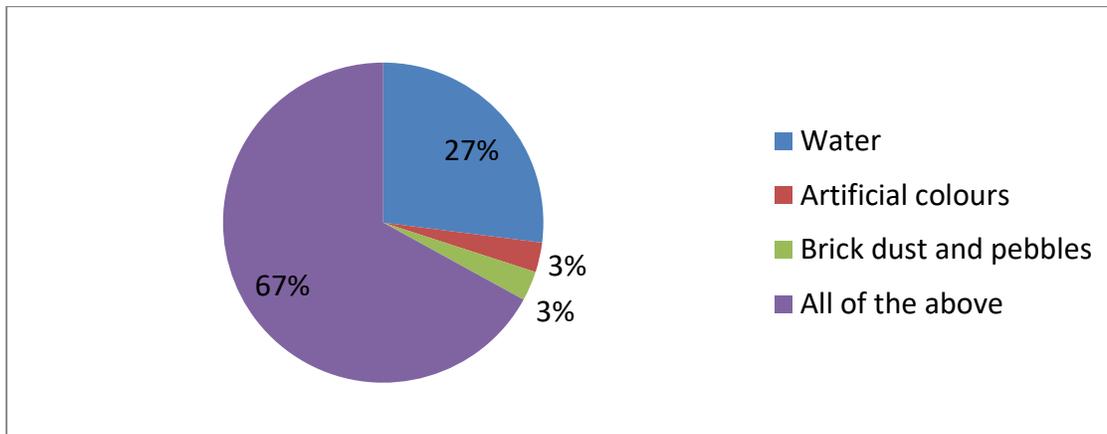


Figure-4

## 5) Criteria used to detect adulteration in food:

Table-5

| Options            | By visual inspection | By touching and tasting | Both A and B | Test provided by FSSAI | Total |
|--------------------|----------------------|-------------------------|--------------|------------------------|-------|
| No. of respondents | 21                   | 2                       | 77           | 0                      | 100   |
| Percentage         | 21%                  | 2%                      | 77%          | 0%                     | 100%  |

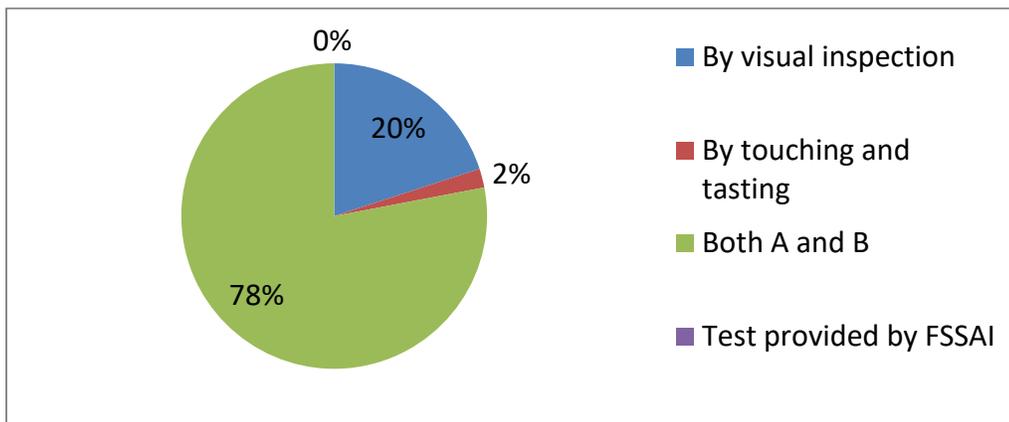


Figure-5

6) Knowledge about the different detection techniques of food adulteration:

Table-6

| Options            | Yes | No | Total |
|--------------------|-----|----|-------|
| No. of respondents | 98  | 2  | 100   |
| Percentage         | 98% | 2% | 100%  |

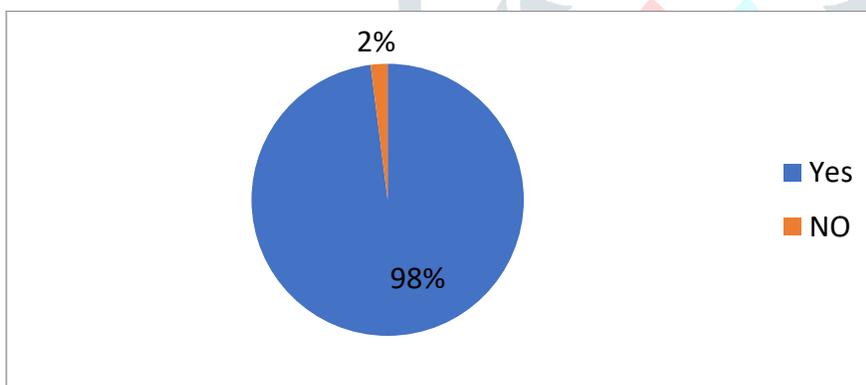


Figure-6

7) Awareness of physical detection technique of food adulteration:

Table-7

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 69  | 31  | 100   |
| Percentage         | 69% | 31% | 100%  |

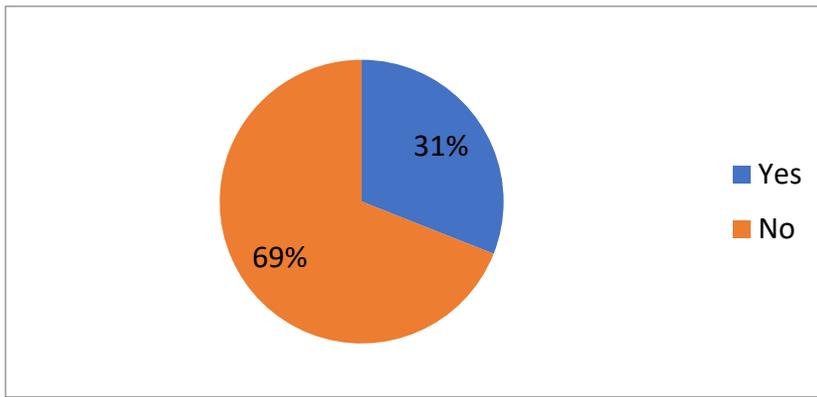


Figure-7

## 8) Knowledge of milk adulterants:

Table-8

| Options            | Yes  | No | Total |
|--------------------|------|----|-------|
| No. Of respondents | 100  | 0  | 100   |
| Percentage         | 100% | 0% | 100%  |

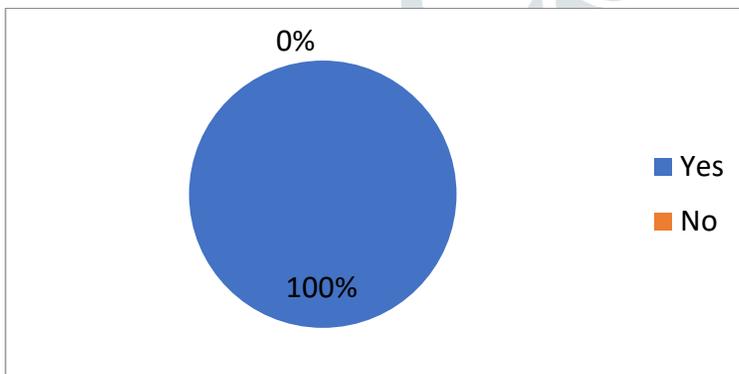


Figure-8

## 9) Awareness about its physical detection technique:

Table-9

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 30  | 70  | 100   |
| Percentage         | 30% | 70% | 100%  |

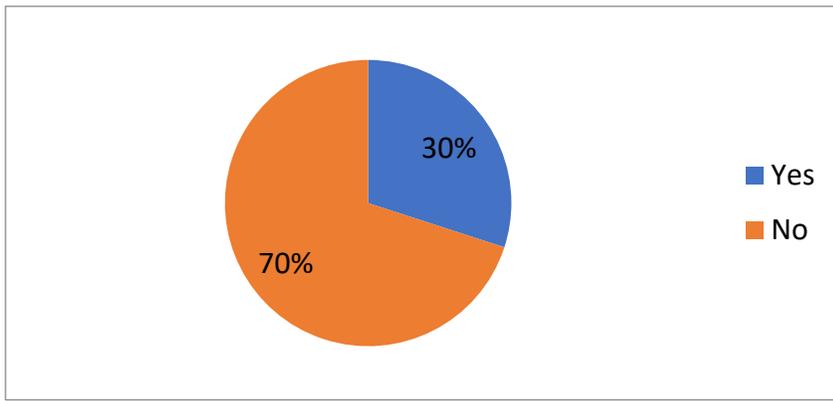


Figure-9

10) Knowledge of spices adulterants:

Table-10

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 73  | 27  | 100   |
| Percentage         | 73% | 27% | 100%  |

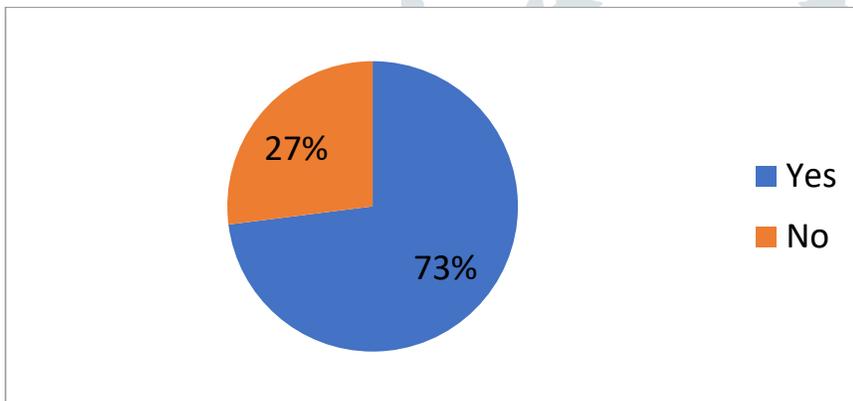


Figure-10

## 11) Awareness about its physical detection technique:

Table-11

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 8   | 92  | 100   |
| Percentage         | 8%  | 92% | 100%  |

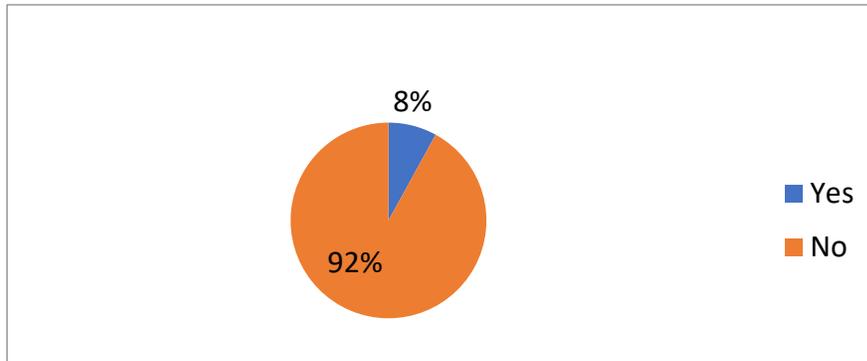


Figure-11

## 12) Knowledge of oil and oil seeds adulterants:

Table-12

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 81  | 19  | 100   |
| Percentage         | 81% | 19% | 100%  |

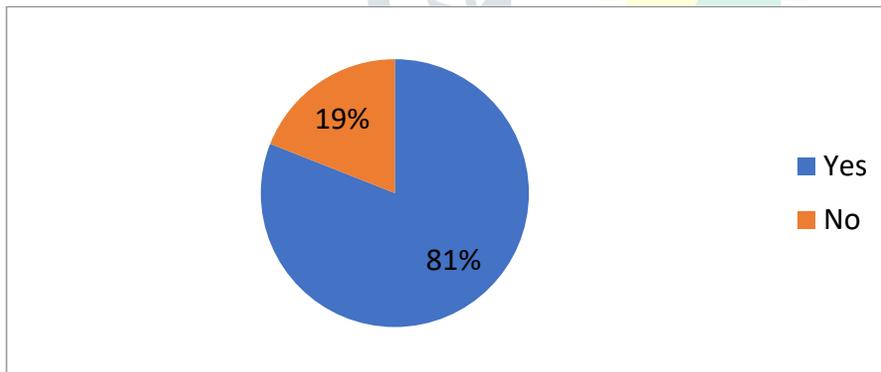


Figure-12

13) Awareness about its physical detection technique:

Table-13

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 7   | 93  | 100   |
| Percentage         | 7%  | 93% | 100%  |

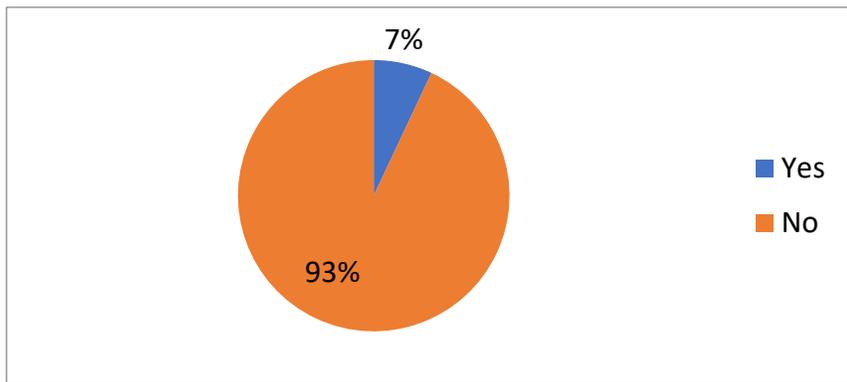


Figure-13

14) Knowledge of meat adulterants:

Table-14

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 9   | 91  | 100   |
| Percentage         | 9%  | 91% | 100%  |

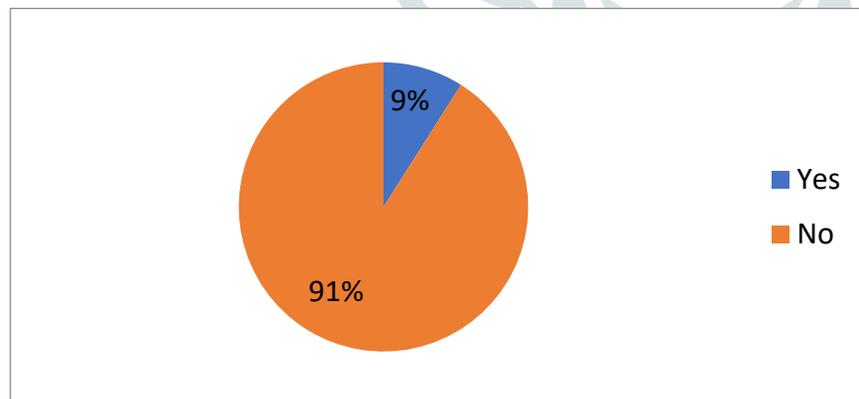


Figure-14

## 15) Awareness about its physical detection technique:

Table-15

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 6   | 94  | 100   |
| Percentage         | 6%  | 94% | 100%  |

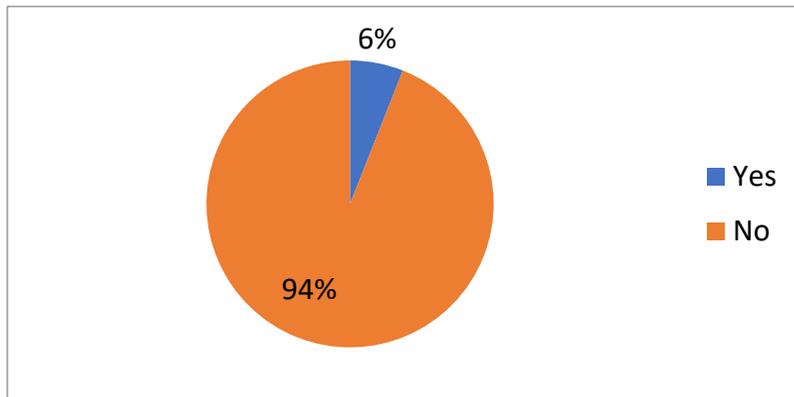


Figure-15

## 16) Knowledge of cereal adulterants:

Table-16

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 22  | 78  | 100   |
| Percentage         | 22% | 78% | 100%  |

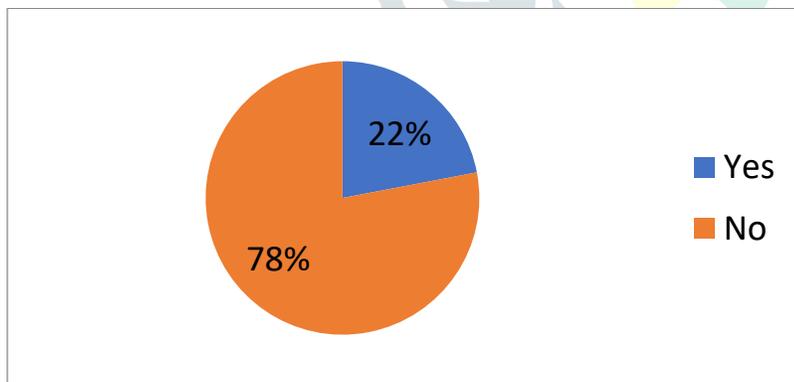


Figure-16

17) Awareness about its physical detection technique:

Table-17

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 3   | 97  | 100   |
| Percentage         | 3%  | 97% | 100%  |

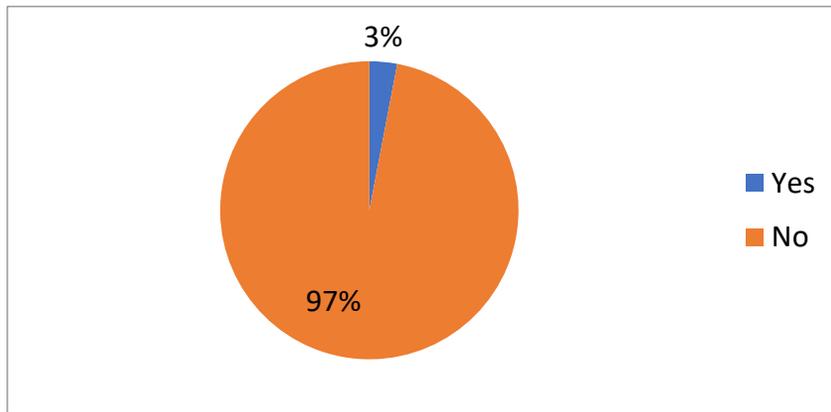


Figure-17

18) Knowledge of beverages adulterants:

Table-18

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 80  | 20  | 100   |
| Percentage         | 80% | 20% | 100%  |

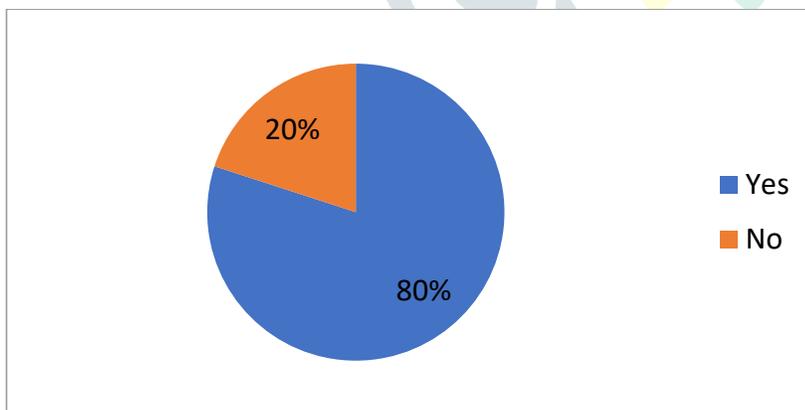


Figure-18

19) Awareness about it's physical detection techniques:

Table-19

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 2   | 98  | 100   |
| Percentage         | 2%  | 98% | 100%  |

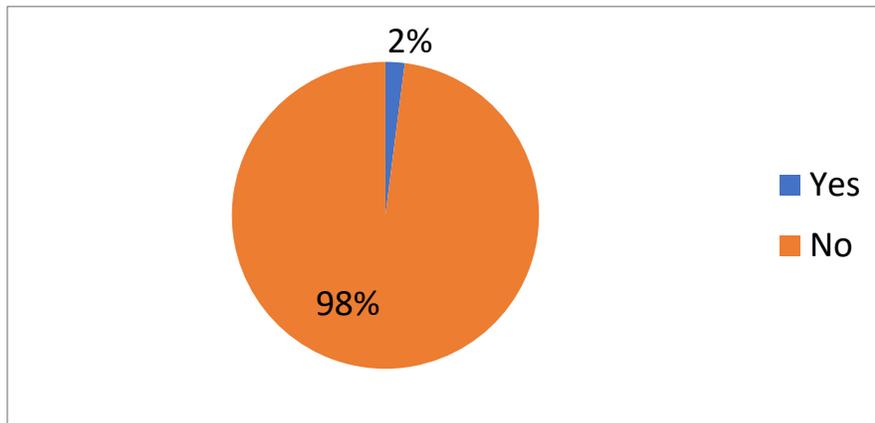


Figure-19

20) Awareness about the government regulations and acts related to food adulteration:

Table-20

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. Of respondents | 1   | 99  | 100   |
| Percentage         | 1%  | 99% | 100%  |

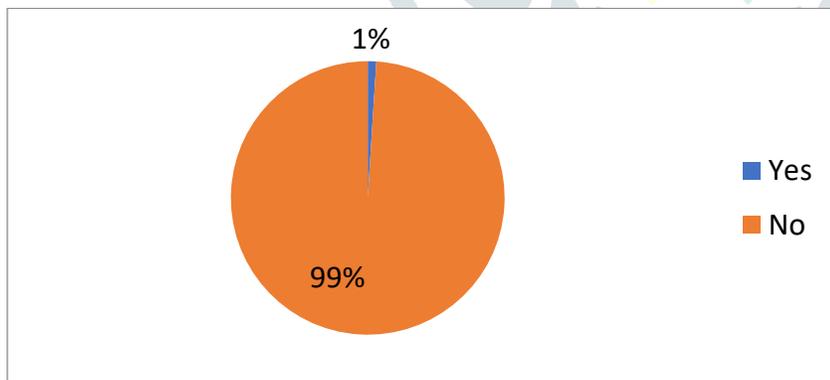


Figure-20

21) Knowledge of the consumer courts:

Table-21

| Options            | Yes | No  | Total |
|--------------------|-----|-----|-------|
| No. of respondents | 1   | 99  | 100   |
| Percentage         | 1%  | 99% | 100%  |

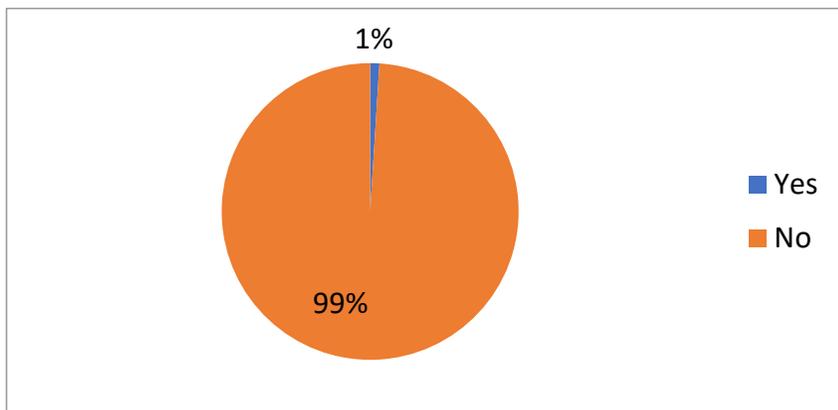


Figure-21

22) Filled case in a consumer court:

Table-22

| Options            | Yes | No   | Total |
|--------------------|-----|------|-------|
| No. of respondents | 0   | 100  | 100   |
| Percentage         | 0%  | 100% | 100%  |

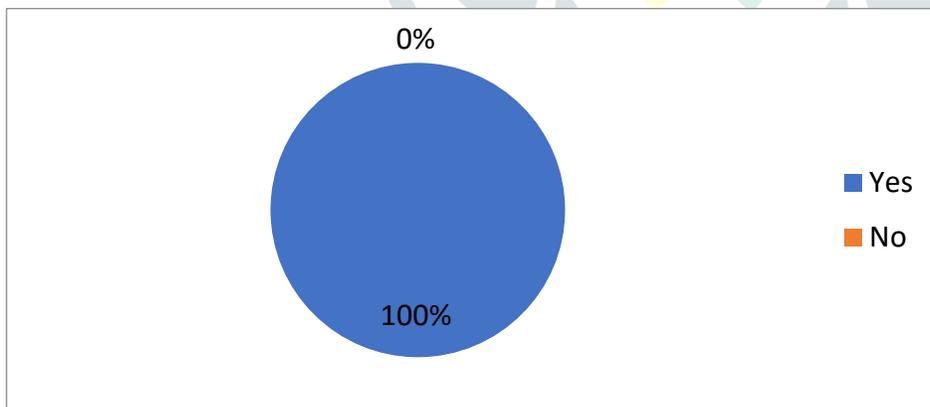


Table-22

## 23) Awareness of whom to complaint against food adulteration:

Table-23

| Options            | Yes | No   | Total |
|--------------------|-----|------|-------|
| No. of respondents | 0   | 100  | 100   |
| Percentage         | 0%  | 100% | 100%  |

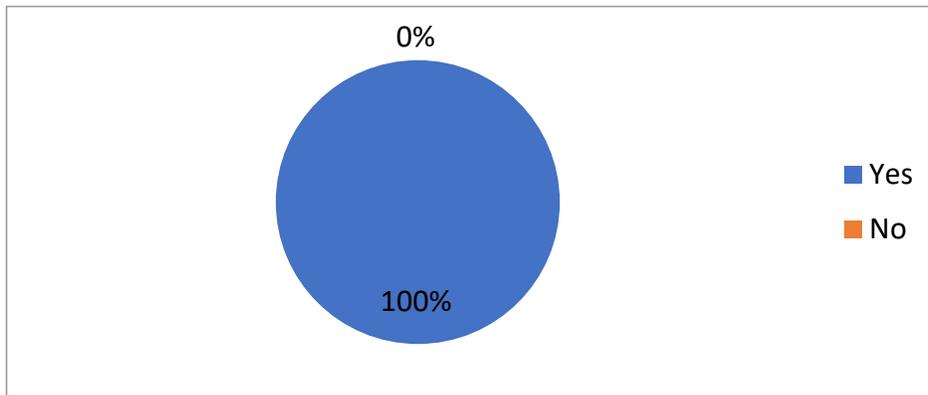


Figure-23

## 24) Complained to whom against food adulteration?

Table-24

| Options            | Food seller | Consumer court | FSSAI | All | Total |
|--------------------|-------------|----------------|-------|-----|-------|
| No. Of respondents | 100         | 0              | 0     | 0   | 100   |
| Percentage         | 100%        | 0              | 0%    | 0%  | 100%  |

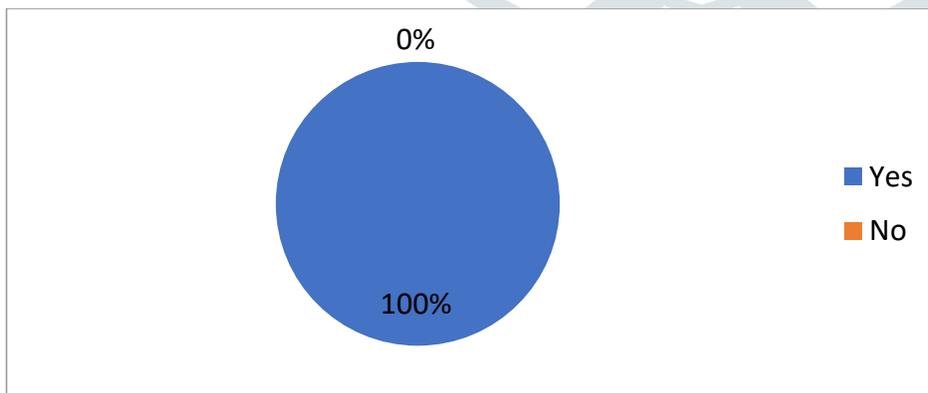


Figure-24

In present study, we found that in Aligarh city women homemakers are going for the cost of the food item first and then quantity and quality of the food products. Among 100 women 42 % choose cost, 32% go with quantity and only 26% women are choosing food products by its quality. all of the women are agree that they aware with the basic adulteration concept but they don't have the deeper knowledge of it. They informed

about adulteration differently. 63% women are gaining this knowledge through newspaper, 28% through television, 7% by internet and only 2% women understand this concept with their family and friends. 100% women respond that they know about adulteration in food items but very few among them are aware with their food detection techniques. And also mostly among them aware only about milk and spices adulteration i.e. approximately 70% but not other food adulterations like meat and cereal adulteration. And approximately 90% women are aware with the different food adulterants, specially milk and spices adulterants but they don't know about the detection techniques of the adulterations, specially in meat or cereals. And also 100% among them use visual inspection or by touching or tasting but not even a single women aware with the testing methods provided by FSSAI. And it's also shocking as well as interesting that only one lady among these 100 knows about the government regulations and consumer courts for complaining against such activities and frauds. And 100% of women complaining only to the seller if they were found such activities with them.

**VI. INCLUSION CRITERIA:** Married female homemakers between the age of 25 to 35 were selected for the study, Female homemakers willing to give information were included in the study, Female homemakers both literate and Illiterate were included.

## VII. CONCLUSION

According to the survey, there was little association between food adulteration awareness and educational status among Aligarh's women homemakers. Despite the fact that 85 percent of them are educated women, they purchased the product without understanding its nutritional value. Because of the rising cost of living, the majority of them always looked at pricing before acquiring things. Due to consumer illiteracy and ignorance of their rights under food safety rules and regulations, as well as their failure to become responsible citizens, adulteration is rampant in low-income communities. Despite the fact that both producers and merchants are aware of the harmful effects of adulteration on one's health, neither has a moral obligation or a code of conduct. This could be due to a lack of severe enforcement of laws and regulations, or to a lack of fear of the law, allowing people to easily bend the rules. Customers are also unclear of their rights and responsibilities, as well as who to contact in such cases.

## VIII. SUGGESTIONS

The government, our educational system, public authorities, and local bodies should raise awareness about quality standards, the consequences of consuming contaminated food, consumer rights, and other topics through campaigns and national awareness programmes so that homemakers buy foodstuffs with care and discretion. For grocery products that are consumed in big quantities, such as grains and pulses, only local brands are popular among consumers. Large manufacturing companies and retail outlets should take the

necessary steps to popularise well-known non-local brands. Consumers should be informed and encouraged to take action against rogue grocery stores and grocery manufacturing companies.

Overall, it was fascinating to witness how women select grocery stores, how worried they were about the quality of the food they purchased, and how much they were aware of food adulteration and government rules and regulations related to this, both as an experience and as an educational opportunity. The ability to observe the process must be a near-essential part of a researcher's education. It aids in determining which concepts in the social and management sciences are based on empirical evidence of individual and group behaviour.

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