

**CONSUMER EDUCATION TOWARDS FOOD ADULTERATION  
AND ITS IDENTIFICATION AT HOUSEHOLD LEVEL BY  
USING LOW COST METHODS: AN INTERVENTIONAL  
STUDY**

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### SUMMARY

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Food safety has emerged as an important global issue with international trade and public health implications. In response to the increasing number of food borne illnesses, governments all over the world are intensifying their efforts to improve food safety. The World Health Assembly adopted a resolution (WHA 53.15) in which, the World Health Organization (WHO) was asked “*to give greater emphasis on food safety...with the goal of developing suitable, integrated foodsafety systems for the reduction in health risk along the entire food chain, from primary producer to the consumers*”.

It is undoubtedly a social evil which can be regarded as the outcome of an interaction between a number of social, economic, technical and human behavioural factors. It is a manifestation of a sick society and can be regarded as a crime similar to other crimes like theft, burglary or murder. Like any other crime, food adulteration is expected to continue in our society as long as the existing factors which generate crime will continue.

What is food adulteration? We have noticed the color of water excessively yellowish while washing the pulses than is expected of it. White stone powder is mixed in salt, chalk powder is also mixed in it. Fine pieces of soap bars are mixed in hing. Generally the pure ghee is adulterated with the vanaspati. Malachite green named chemical is used enormously in green vegetables like green chillies. Haldi powder is mixed up with metanil yellow. Vegetables look excessively reddish than desirable after the chilli powder is dropped into it while cooking. It happens due to the mixing up of rhodamine named chemical and the brick powder is also mixed up into it.

It is common in almost all developing countries. And its ugly face is come out in the form of its harmful effects as stomach disorder giddiness and joint pain, diarrhea, liver disorder, dropsy, gastrointestinal problems, respiratory distress, oedema, cardiac arrest, glaucoma carcinogenic effects, paralysis etc. In a developing country which is at the lowest rung of the development ladder, food adulteration consists of relatively simple measures

It is felt that there is an urgent need for an impartial scientific study to determine the prevalence of food adulteration at household level in the country. Such study should not be undertaken by an interested party, the consumers or the law enforcers, but should be undertaken by a research institution in a properly designed and controlled manner. The National Institute of Health and Family Welfare and the Indian Council of Medical Research are ideally suited to undertake such a study in various parts of India in order to find out the extent of food adulteration, the types of foods which are commonly adulterated, the types of adulteration adopted, the common adulterants used, the health hazards of such type of adulteration and lastly, to explore as far as possible the motives for such adulteration.

In other words, such a study will generate for the first time data on the basis of which one can develop an "anatomy of food adulteration" and possibly, get an idea of the "profiles of the food adulterators" and the reasons for such adulteration. The results of such a study will be an eye opener for the consumers, law enforcers and also for those who are brooding for decades as to the reasons of food adulteration and how to prevent this menace.

This study will be conducted to make people aware about adulteration and its ill effects on health from their daily meal item, either, in cereals, pulses, fruits and vegetables or in milk and milk products and spices. Therefore, it is a need to make them aware with simple and easiest methods of detection of adulteration at household level with low cost value. Because most of the

people are well aware with adulteration and its ill effects but due to their busy life, less time availability and costly methods of adulteration detection techniques was done by laboratories only. People ignore this one of the major health problem causing element at community level.

## **Objectives**

7. To know the existing knowledge of consumer toward food laws, food safety, consumer behavior, health hazard at study area.
8. To elicit and classified adulteration in food stuffs used at household preparation in day to day life as per five food groups.
9. To give demonstration and detection of adulteration of selected food stuffs with using low cost method.
10. To examine food quality by using sensory evaluation techniques and detection kits.
11. To evaluate domestic methods for adulterated foods by using learning kits in the study area.
12. To study correlated factors with adulteration and its impact on health hazard as well as consumer behavior in the study area.

The study was conducted in 3 parts at Lucknow district. Each part included period of study time, sample size, selected study subject and sampling methodology. A pilot study on 40 sample size was conducted to find out the percentage of food adulteration rate in various food stuffs consumed at household level. The study is explain under 3 parts which was collective approach of above following heads.

## **Result**