

Development and testing the efficacy of the educational programme on the knowledge of the homemakers regarding food adulteration health effects and redressal mechanism

SHILPISHARMA AND SANGITA PATEL

ABSTRACT

The study conducted revealed that there was a significant increase in the level of knowledge on the homemakers scoring low on the knowledge test prior to the administration of the educational programme. Hence, this proved the high efficacy of the educational programme prepared and administered on the homemaker with low level of knowledge on food adulteration, health effects and redressal mechanism. The level of knowledge of these respondents had increased a little after a period of one month. The media is an effective tool to impart an education to the consumers. The video cassette prepared to impart knowledge among the homemakers on food adulteration, health effects and redressal mechanism, proved to be successful.

KEY WORDS : Educational programme, Food adulteration, Redressal mechanism

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INTRODUCTION

Everyone who lives, whether very young or old is a consumer. As soon as one is born he is a consumer of food, clothing, water and other items. The things that consumers use are known as consumer goods. The person who uses or consumes is known as consumer. The consumer is a 'king', a 'sovereign' but in reality, it is not true. The consumer is sovereign without sovereignty. The consumer is faced with the problems of food adulteration and other malpractices. Instances of food adulteration are innumerable and ways are novel and ingenious and found in various judgments of Supreme Court and those of High Court. Adulteration, therefore, required to be rooted out to save the innocent purchasers, from suffering health hazards for no fault of theirs. To meet this end, attempts have been made from time to time through legislative measures to tighten the law against adulteration.

Food is a substance as solid or liquid which is required to sustain growth and development, to regulate body processes and to keep the body well. On the other hand

food adulteration is substituting food wholly in part by any cheaper or inferior substance or of removing any of its constituents, wholly, or in part, which affects adversely the nature, substance or quality of the food (Srilakshmi, 2001).

Food has been adulterated to a greater or lesser degree since very early times. The turning point so far as the consumer was concerned came in the 19th century. Between 1820 and 1860, attention was drawn to the prevalence of food adulteration by few writers, Members of Parliament and Microscopists. Government records show that on an average 25 – 30% of edibles sold in various parts of the country are adulterated. The incidence of food adulteration in some states is even higher and it is no exaggeration to say that the nation's health is in peril. In many instances, the health effects of adulteration become apparent only after a lapse of days, months or even years, very often, the resulting order or distresses is not even remotely linked with the adulterated food (Ronald 1971).

Adulteration may be intentional or incidental. The

Correspondence to:

SHILPI SHARMA, Department of Family and Community Resource Management, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, VADODRA (GUJARAT)

Authors' affiliations:

SANGITA PATEL, Department of Family and Community Resource Management, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, VADODRA (GUJARAT)

former is a willful act on the part of the adulterator intended to increase the margin of profit. Incidental contamination is usually due to ignorance, negligence, lack of proper facilities. Some commonly occurring health hazards after the consumption of adulterated food items are impairment of the normal functioning of the digestive system, rough and dry gastric lining, some carcinogenic effects, gastrointestinal cancer, vomiting, epidemic dropsy, edema of hand and face, glaucoma, enlargement of the liver, cancer and respiratory distress, various abnormalities of bones, eyes, skin, lungs, ovaries, testicles, mental retardation, anemia and accumulation of lead in the body and blood, dizziness, chills, cramps, paralysis, and even death (Jacob, 1976).

The adulterants used are so similar to natural foodstuffs that it becomes very difficult for a common man to detect them. So, there are few simple test for the detection of adulterates found in common foodstuffs.

The right to redressal means the right to a fair settlement of just claims, not only economic but also social and political. It includes the rights to receive compensation for misrepresentation of shady goods or unsatisfactory services and the availability of acceptable forms of legal and or redress for small claims where necessary. The Government of India has empowered several agencies and promulgated a number of acts and orders to control this menace (Antony, 1995 and Iyengar, 1954).

Educated and well informed consumer is an asset to any society. He lays a foundation for the building up of a qualitatively superior society. Indian consumers are one of the most exploited consumers in the world. He is being placed and duped by many public as well as private sector enterprises. However, due to rapid increase in demand, the consumer has to face all the malpractices going on in all the fields followed by producers in the market (Devdas, 1970).

The producers and marketers adopt various methods or techniques to meet their ends. They have made the consumer a target of the unscrupulous practices. Consumer does not get adequate response for setting their grievances from them with this consumers have become victim of various types of exploitation.

A person attains the attribute of a good consumer through a comprehensive package of consumer education regarding food adulterant, its effects on health, detection methods and prevention. Consumer education is a prerequisite for the success of consumerism. It develops in them the power of skilled and rational thinking based on the logic, and adopts a realistic attitude towards a lifestyle or a standard of living. Consumer education is urgently needed in India because of the sharp diversity in attitude awareness and spending habits of Indian consumers in

both urban and rural areas (Tiwari, 2002). One of the key features and benefits of video is that it is more effective visual information presented by the use of moving images, speech, sound and graphics.

Today the consumer is very much confused as to what to buy, when to buy, how to buy and how to make the best use of what they buy and to get the greatest value for their money. One of the major expenditure items is food for which the consumer has to make major decision. Because of competition and to earn profit, the sellers follow several malpractices. Adulteration of food is one of them.

An overview of researches in India and abroad highlighted that there are studies on adulteration of different food items like cereals, pulses, etc. permitted and non-permitted colours, to solve food adulteration by mobilizing consumer resistance, buying practices, awareness regarding rights and responsibilities of the consumer, effectiveness of the legislative protection homemakers, independent decisions taken by the housewives regarding quality, quantity, place and time of purchase of food, knowledge of respondents regarding standardized marks, knowledge of market trends, effectiveness of consumer education and so forth but the investigator did not come across any of the studies regarding the development of educational programme on food adulteration, health effects and redressal mechanism which motivated to conceptualize the present study.

After viewing this practical difficulties, an effort has been made for the present study to satisfy all the queries of the consumer by way of developing and educational programme on food adulteration, health effects and redressal mechanism on the basis of feedback received from the preliminary data (1st phase of data).

Objectives

The study was undertaken with the following objectives to develop educational programme for homemakers regarding food adulteration, health effects and redressal mechanism, to test the level of homemakers regarding food adulteration, health effects and redressal mechanism before and after the introduction of the educational programme and to conduct a follow-up study (one month) to check the retention of knowledge by respondents regarding food adulteration, health effects and redressal mechanism.

Delimitation:

The delimitation of the study was:

– The study was limited to 90 homemakers of there residential areas of Agra City.

– Educational Programme was prepared in Hindi language for only one audio – visual media i.e. video film.

Hypotheses:

There is a difference in the knowledge of the homemakers on food adulteration, health effects and redressal mechanism before and after the administration of the educational programme and after a time gap of one month.

METHODOLOGY

The research design was descriptive as well as experimental in nature: The descriptive research design was to identify the sample for experimental purpose and the experimental design was adopted to test the efficacy of the educational programme. Systematic random sampling technique was used to select the sample for the study which comprised of 30 homemakers from Sulabh Vihar, 30 homemakers from Kamla Nagar and the rest 30 homemakers from Nirbhay Nagar of Agra city, thereby totaling 90 homemakers. Questionnaire was selected as a tool for collecting the data, which contained a knowledge scale apart from other questions to elicit background information on the respondents. The questionnaire was standardized. The knowledge was subjected to establishment of content validity by giving to panel of 11 judges, who were Home Scientists from Home Management Department and Food and Nutrition Department and the Public Analyst of Food and Drug Laboratory. Before proceeding for the final data collection, pre-testing of the questionnaire was done with 30 respondents which were not included in the final sample. The reliability of the tool was established through split half method which was 0.81. Item analysis of the knowledge scale was done, which throws light on the index of item difficulty and index of validity. After item analysis, the final scale included 58 items, out of 60 items of the original knowledge scale.

Development of the educational programme:

Video film was chosen as a tool for the preparation of the educational programme, as more effective visual information is presented by the use of moving images, speech, sound and graphics. The script was prepared in English language and then translated to Hindi language and was validated by three language experts. The content of the video film comprised of the following:

- Importance of food in the life,
- The role played by the food for the existence,
- Reasons behind adulterating food by the manufacturer,

- Adulterants present in selected food items,
- Information on the effects of consuming the adulterated food on the health of the consumer,
- Their detection tests,
- Information on the redressal mechanism and
- Laws formulated regarding food were discussed.

The ready educational programme was of 30 minutes.

The five experts in the field judged the content validity of the programme.

The homemakers were asked to furnish the required information in the questionnaire. The knowledge scale had a three point continuum where respondents were asked to state whether the statements are correct, incorrect or they do not know about it. The scores of 3 through 1 were ascribed to positive statements and the scoring was reversed for negative statements. The scores were summated. Thirty seven of the Homemakers out of 90 scored below the cutoff point. The low scores were exposed to the educational programme. Then again the knowledge scale was administered to them in order to test the efficacy of the educational programme. After a time gap of one month again, the data were collected from the same to test the retention of knowledge regarding food adulteration, health effects and redressal mechanism among the homemakers.

OBSERVATIONS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under following heads:

Personal characteristics:

Personal characteristics include are age, education and occupation of the respondents. Age, education and occupation of the respondents was thought to be one of the variable affecting the knowledge of the homemakers on food adulteration, health effects and redressal mechanism.

The mean age of the respondents was 37.12 years. One half of the respondents were graduates. About three fourth of the respondents were housewives (Fig. 1).

Family characteristics:

Family characteristics include family income, type and size of the family. Information about the income, type and size of the family was gathered to see whether it had any effect on knowledge of homemakers on food adulteration, health effects and redressal mechanism.

About 43 per cent of the respondents were from middle class with the monthly family income Rs. 15,000 or less. Almost one half of the respondents had 4 members

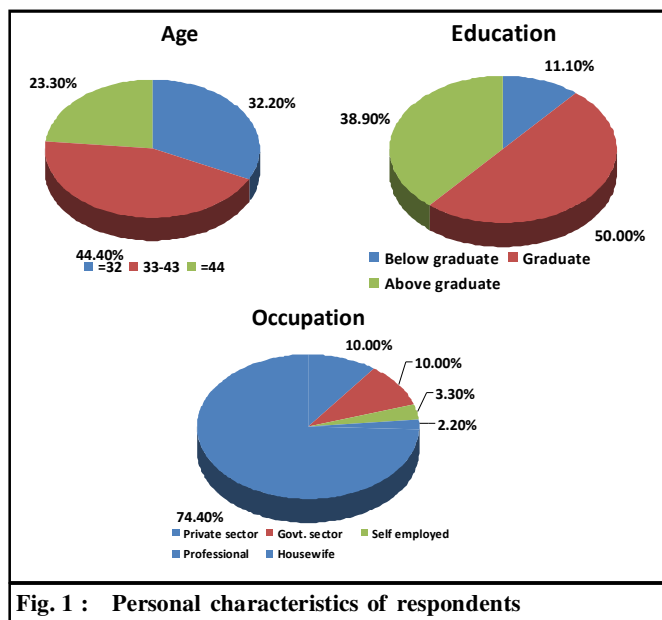


Fig. 1 : Personal characteristics of respondents

in their family. The mean size of the family was 4.88. About two third of the respondents belonged to nuclear families (Fig. 2).

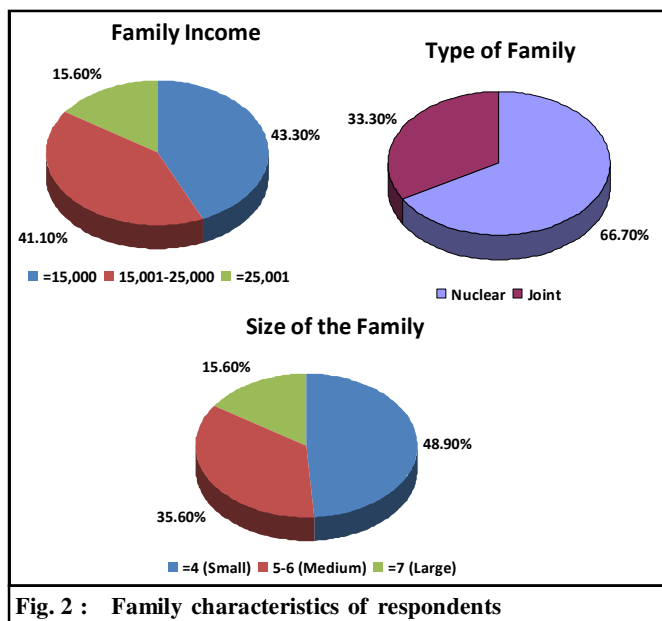


Fig. 2 : Family characteristics of respondents

Source of information:

All the respondents responded affirmatively when asked about their exposure to various sources of information on food adulteration, health effects and redressal mechanism.

The Newspaper was the most popular source of information on food adulteration, health effects and redressal mechanism to which the respondents were found to be exposed (Fig. 3).

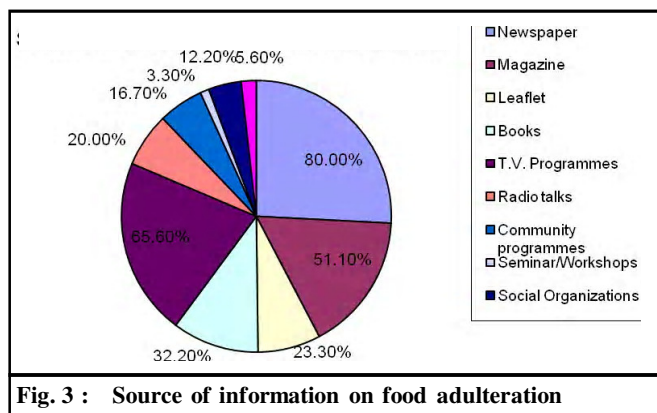


Fig. 3 : Source of information on food adulteration

Extent of exposure to sources of information:

For an in depth qualitative probe, the responses of the respondents were further subjected to scores. A score of 2 was given to Yes and 1 to No. the range of scores for the exposure of the respondents was 10-20. This was divided into two categories having equal intervals of scores.

The Newspaper was most popular source of information on food adulteration, health effects and redressal mechanism to which the respondents were found to be exposed. Further probe on the respondents' extent of exposure to varied sources of information on food adulteration, health effects and redressal mechanism revealed that most of them had a low level of exposure (Fig. 4).

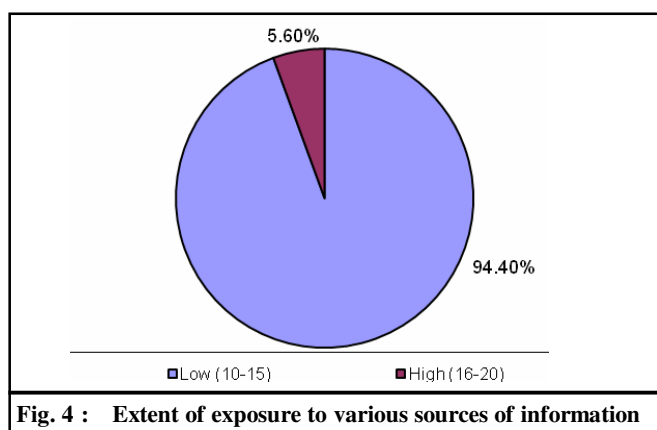


Fig. 4 : Extent of exposure to various sources of information

Knowledge of homemakers regarding food adulteration, health effects and redressal mechanism:

An inquiry on the existing level of knowledge of the respondents on food adulteration, health effects and redressal mechanism was gathered through a knowledge scale before the administration of the educational programme was made. Mean weighted scores was thought

to be a better measure of comparison. Hence, they were compared for various aspects of knowledge scale before and after the administration of the educational programme. On comparing the mean weighted scores, it was found high on health effects then on redressal mechanism and low on food adulteration before and after the administration of the educational programme and the same results were obtained when the knowledge test was administered after a time gap of one month.

Mean weighted scores on various aspects of food adulteration before and after the administration of educational programme and after a time gap:

The mean weighted scores on the entire knowledge scale were 2.42 % before the administration of the educational programme which increased to 2.59 % after the administration of the educational programme. It increased to 2.64 % after a time gap (Fig. 5).

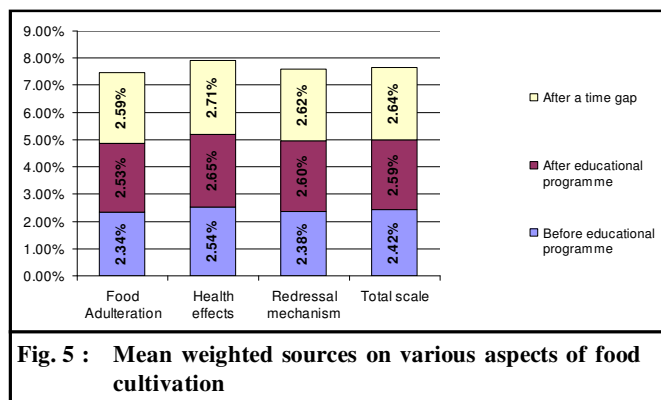


Fig. 5 : Mean weighted sources on various aspects of food cultivation

Testing of hypotheses:

Hypotheses were formulated on the basis of the objectives of the study. In order to observe the efficacy of the educational programme administered on the homemakers, t-test by difference was computed on the obtained pre-and post-scores and scores after a time gap of the respondents on knowledge scale (Table 1).

The respondents significantly differed in their knowledge level on food adulteration, health effects and redressal mechanism prior to and after the administration of the educational programme as revealed through the paired t-test. This indicates the high efficacy of the

educational programme prepared and administered to the respondents (Table 1).

Conclusion:

In light of findings, it can be concluded that there was a significant increase in the level of knowledge on the homemakers scoring low on the knowledge test prior to the administration of the educational programme. Hence, this proved the high efficacy of the educational programme prepared and administered on the homemaker with low level of knowledge on food adulteration, health effects and redressal mechanism. The level of knowledge of these respondents had increased a little after a period of one month.

The media is an effective tool to impart education to the consumers. The video cassette prepared to impart knowledge among the homemakers on food adulteration, health effects and redressal mechanism, proved to be successful. The video cassette developed for this research can be used for creating awareness among various homemakers and in non-formal educational set-up.

Implications:

Based on the findings of the study, the following implications can be drawn:

For home management and home science discipline:

The curriculum of Home Management and Home Science offers various courses related to consumer education, thus it will prove to be an important for the area of Family and Community Resource Management. The educational programme prepared will prove to be an effective aid for the extension workers to disseminate knowledge in urban as well as rural areas.

For consumer forums and voluntary organizations:

This study will be helpful to the Consumer Forums and Voluntary Organizations that fight for the consumer rights and responsibilities. The educational programme will be an effective aid for them to impart the education.

Government:

The findings of the study will help the government to

Table 1 : Paired t-test showing the difference in the existing and increased knowledge of the respondents on food adulteration, health effects and redressal mechanism

Variables	Mean values	t-values	df	Level of significance
Before educational programme (pre-scores)	131.9459	14.42	36	0.01
After educational programme (post-scores)	150.3514			
After educational programme (post-scores)	150.3514	2.36	36	0.05
After a time gap	153.0000			

gain an in depth insight about the malpractices of the manufacturers and thus keep a check on them and ensure consumer welfare.

For consumer as a whole:

The educational programme prepared will furnish their knowledge regarding the same and help them to become a wise buyer.

For homemaker:

The educational programme will be great help for them to detect various adulterants mixed with the food items, to be aware of health hazards and also the process of the redressal and utilizing the various laws and acts promulgated to protect themselves from malpractices. It will help them to use their knowledge for the better health of their family and self understanding.

For libraries:

The findings of the study will enrich the existing data base for subjects related to consumer education.

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