

Awareness of rural women of punjab regarding pollution causing and environmentally safe food and cooking practices

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■ **ABSTRACT** : Rural households in India are more prone to household pollution as apart from routine pollutants generated in houses especially in kitchens. The present study was conducted to find out the awareness regarding pollution causing and environmentally safe cooking practices in three regions of Punjab i.e. Majha, Malwa and Doaba. For this purpose, 240 rural women of district Gurdaspur, Hoshiarpur and Ludhiana were selected. Data were collected through interview schedule. The study revealed that large majority of women (90%) were aware that oils fumes released during process of frying pollutes air. Only one third respondents were aware that use of solar cooker is eco friendly. About 78 per cent of women were not aware that use of heavy utensils is responsible for higher consumption of fuels which leads to air pollution. About fifty per cent of respondent had medium and high level of awareness regarding food and cooking practices. Age, education, mass media exposure, family education and family income were significantly correlated with level of awareness. Although the women had awareness about pollution causing practices but they did not know the alternatives and management strategies to control pollution in kitchen. There is need to educate rural women regarding management of safe food-cooking practices through different interventions.

■ **KEY WORDS** : Awareness, Food and cooking practices, Pollution

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The degradation of environment with respect to water, air and soil is increasing day by day, not only in the urban areas but also in the rural areas. There has been an increasing global concern over the impact of environmental pollution on public health. Many of the diseases facing mankind are reported to occur due to prolonged exposure to polluted air, water and soil. A common man observes environmental pollution in the form of changing climate, ozone depletion, rising in sea level, acid rain and polluted air in the cities but he is little aware of the fact that household pollution is as important as pollution of the outside environment (Songsere and Granahan 1993). Rural households in India are more prone to household pollution, especially in kitchens. The traditional cooking practices in rural household kitchens generate a mixture of toxic gases, which affect the inhabitants especially the women who spend much time in kitchen. In

India, mainly solid and biomass fuels like coal, dung, charcoal, wood or crop residues are main sources of fuel. Solid fuels produce more pollutants than liquid ones. Apart from this the traditional cooking practices performed by rural women may produce certain harmful gases in kitchens that affect the health of rural women. Hence the present study was an attempt to find out the awareness of rural women regarding pollution causing and environmentally safe food and cooking practices with following objectives:

- To identify the pollution causing and environmentally safe food and cooking practices.
- To study the awareness of rural women regarding pollution causing and environmentally safe food and cooking practices.
- To study the relationship between socio-personal profile and level of awareness.

■ RESEARCH METHODS

The study was conducted in three socio-cultural regions *i.e.* Majha, Malwa and Doaba of Punjab State. Three districts one from each region of Punjab were further selected. A sample of 240 women was drawn randomly from twelve villages (four from each selected district) by selecting twenty rural women from each village. Keeping in mind the objectives and sample of the study, an interview schedule was prepared for collection of information. To identify the major pollution causing practices and environmentally safe food and cooking practices, relevant literature and experts from Food and Nutrition department of Punjab Agricultural University, Ludhiana and Environment Pollution Control Board were consulted. The collected data were analysed by using frequency, percentage and correlation coefficient.

■ RESEARCH FINDINGS AND DISCUSSION

A finding of the study has been discussed under following headings:

- Awareness regarding pollution causing and environmentally safe food and cooking practices
- Level of awareness regarding food and cooking practices
- Relationship between socio-personal characteristics and their level of awareness

Awareness regarding pollution causing and environmentally safe food and cooking practices:

Awareness was observed regarding identified pollution causing and environmentally safe food and cooking practices

such as fossils fuels ignitions, improper burning of dung cake, overcooking, solar cooker use etc. The mean score of each practice was calculated by assigning score one and zero to dichotomous response categories *i.e.* aware or not aware. Level of awareness was also categorised into low, medium and high according to score range of practice. Data presented in Table 1 revealed that large majority (more than 86 per cent) of respondents were aware that deep frying method for cooking, pesticide spray on vegetables and oils fumes released during process of frying with hydrogenated oils pollute environment. These practices also achieved highest mean score. About 82 per cent of respondents were aware about overcooking of vegetables leads to air pollution followed by 75.83 per cent improper burning of dung cake and 73.33 per cent aware about burning of fossil fuels causes pollution, respectively. One-third of the respondents were not aware that use of heavy utensils leads to pollution and solar cooker is eco friendly and lowest mean score were also observed regarding these practices. Forty six per cent were not aware about storage of preserved food in plastics is harmful for health and environment. These findings are in line with the observation of Dhillion (2001) and Kaur (2002) who reported that farm women had medium level of awareness regarding pesticide residues in vegetables.

Level of awareness regarding food and cooking practices :

Data pertaining to Table 2 presents the information with respect to level of awareness of rural women regarding food-cooking practices. Half of the respondents had medium level of awareness which is followed by 43.75 per cent high level and

Table 1: Distribution of respondents according to their awareness regarding pollution causing and environmentally safe food and cooking practices (n=240)

Pollution causing practices	Awareness		Mean score	Rank
	Aware f (%)	Not aware f (%)		
Use of fossil fuels ignitions pollute air	176 (73.33)	64 (26.67)	0.73	6
Improper burning of cow dung cake create pollution	182 (75.83)	58 (24.17)	0.75	5
Gases released and residues from <i>jantar</i> burning are harmful for environment	94 (39.17)	146 (60.83)	0.39	9
Oil fumes released during process of frying with hydrogenated oils pollutes the air	208 (86.67)	32 (13.33)	0.87	2.5
Use of heavy utensils are responsible for higher consumption of fuels which pollutes air	52 (21.67)	188 (78.33)	0.22	11
Deep frying method for cooking is harmful for environment	217 (90.42)	23 (9.58)	0.90	1
Overcooking of vegetables leads higher fumes as well as higher consumption of fuels	198 (82.50)	42 (17.5)	0.82	4
Storage of preserved food in plastics is harmful for health and environment	129 (53.75)	111 (46.25)	0.54	8
Spray of pesticides on vegetables in household kitchen gardens pollute air and soil	208 (86.67)	32 (13.33)	0.87	2.5
Environmentally safe practices				
LPG/ Biogas is more safe for environment than kerosene stoves/ open <i>chullah</i>	140 (58.33)	100 (41.67)	0.58	7
Use of solar cooker is eco friendly	83 (34.58)	157 (65.42)	0.34	10

Table 2: Level of awareness regarding food and cooking practices (n=240)

Level of awareness	Frequency	Percentage
Low (0-4)	15	6.25
Medium (4-8)	120	50
High (>8)	105	43.75

6.25 per cent low level of awareness 3. Relationship between socio-personal characteristics and their level of awareness

Relationship between socio-personal characteristics and their level of awareness :

Data given in Table 3 revealed that age was significantly negatively correlated with awareness. Education, mass media exposure, family education and family income were significantly correlated with awareness where as respondent’s income, extension contacts and family size had no significant effect on awareness.

Table 3: Relationship between socio-personal characteristics and their level of awareness

Socio-personal characteristics	r-value
Age	-0.246*
Education	0.556*
Respondent’s income	0.114 NS
Extension contacts	0.082 NS
Mass media exposure	0.465*
Family size	-0.069 NS
Family education	0.301*
Family income	0.301*

* indicate significance fo value at P=0.05, N.S.= Non- significant

Conclusion :

Although women had awareness about pollution causing practices but they don’t know the alternatives and management strategies to control pollution in kitchen. Respondent education, mass media exposure, family income and family education had positive and significant relationship with level of awareness. There is need to educate rural women regarding management of pollution causing food and cooking practices through different interventions. Mass media had positive and significant relationship with level of awareness. So, it is suggested that special attention should be paid by mass media planners to include more programmes and articles regarding environment pollution of these practices.

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■ REFERENCES

Dhillon, R.S. (2000). *A study of farmer’s awareness regarding agricultural pollution in Punjab*. M.Sc. Thesis, Punjab Agricultural University, LUDHIANA, PUNJAB (India).

Kaur, N. (2002). *Study on the awareness of farm women about pesticides residue in cereals, vegetables, milk and milk products*. M.Sc. Thesis, Punjab Agricultural University, LUDHIANA, PUNJAB (India).

Songsore, J. and Granahan, G. M. (1993). Environment, wealth and health: towards an analysis of intra urban differentials within the greater Accra metropolitan area, Ghana. *Environment and urbanization* 5.
