

## Indian Rural Women : A Study on Smokeless Chulhas

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Most of the houses in the village have kitchen outside the house and one of the reasons of having it outside is to avoid smoke inside the house. Smoke from the traditional chulhas during cooking is one of the major causes for ill health of rural women. Acute Lower Respiratory Infections (ALRI) refers to various infections of lower respiratory tract mainly caused by bacteria in developing countries- the most serious case of which is pneumonia. According to WHO, 36 per cent of all ALRI is attributed to Indoor Air Pollution (IAP) from the use of biomass fuels (fuelwood, animal dung, crop residues etc.) for cooking, heating and light. In a typical household, cooking with biomass fuels, the level of particulate matter (LOPM), which is one of the health damaging pollutants due to IAP, is as high as two to twenty times higher than what the US Environmental Protection Agency (US EPA) considers a safe level and ALRI is not the only burden due to IAP. Studies have shown that Chronic Obstructive Pulmonary Disease (COPD) in women above 45 years has a strong and consistent association with IAP, COPD is estimated to claim 106,000 Indians every year. Other outcomes for which evidence is moderate or tentative include otitis, asthma, low birth weight, tuberculosis, cataract, parental prenatal mortality, nasopharyngeal cancer and laryngeal cancer (Taishi, 2004).

IAP effects in India is more than other countries. It is estimated that 86 per cent of rural and 24 per cent of urban household still rely on biomass fuels. The victims of these disease are predominantly women reflecting that women are responsible for cooking in many parts of the society where IAP widely prevails. Furthermore, in addition to these health impacts, there are indirect negative effects associated with the use of biomass fuels. Studies show that women spend one and a half to two hours a day for collecting fuels which causes drudgery. The burden of IAP is disproportionately higher among the most vulnerable populations in the society- women-IAP and there is a vicious circle between IAP and poverty. Worst health leads to high health expenses and lower produce and thus lower income. Poverty exacerbates the dependence on more polluting energy sources and means less resource for pollution abatement and health care.

Interventions to eradicate IAP require orchestrated action that range from change in national energy policy and infrastructure of energy supplies, to the changes at grass-roots level such as promoting trained health workers or changes in housing structure (more well ventilated houses) and cooking behaviours. Some of these actions are resource intensive others may require more time to actualize (CMIE, 2006).

One of the solutions that many believe can have an immediate effect is the adoption of smokeless chulhas. The smokeless Chulha is simple in design and mechanism and operates similarly as the traditional chulhas used by many families except that it has a chimney. Its fuel efficiency is also high thus reducing the quantity of fuels. Keeping this point in view the present study had been undertaken to access the knowledge and adoption by rural women of district Faizabad, about various aspects of smokeless chulhas (Reddy et al., 2003).

### Material and Methods:

This study was conducted in the village Jorium and Tendha of block Milkipur of district Faizabad (U.P.) selected purposively. The sample size for study consisted of 100 rural women, 50 from each village selected randomly. The data were collected from the respondents by using personal interview technique. Analysis of data was carried out and presented in terms of percentage.

From table 1 it is clear that majority (40%) of families are still using traditional chulha followed by smokeless chulha (22%), LPG chulha (20%), kerosene oil stove (18%) and coal furnace chulha (12%).

Only 30% women know about smokeless chulha while 45% women having knowledge about health hazards of using traditional chulha. Cooking food on traditional chulha causes fatigue according to 30%, respondents whereas, 28% said that it is more fuel consuming and 22% respondents that it is health hazardous, where as 60% is of opinion that it is more time taking.

85% respondents stated that there is more chances of accidents during cooking on traditional chulha. 77% respondents agreed that there is a problem of maintaining cleanliness of utensils and houses while using traditional chulha. In the selected villages only 20% respondents are using smokeless chulha. Only 63% respondents agreed that there is ill effect of traditional chulha on other family members whereas, 95% respondents agreed that ill health also effects family income. Only 30% respondents know about smokeless chulha and government programme about smokeless chulha.

#### **Conclusions:**

The results of the study show that there is need of more efforts to make people aware about smokeless chulha. People must be aware about the benefits of using smokeless chulha over traditional chulha. There is need of imparting more knowledge to women about smokeless chulha and its usefulness like its non-hazardous effect on health of all family members. Because if people are healthy then only society will progress. More programmes are needed to be launched by government for adoption of smokeless chulha by rural people. If people become aware then there will be more adoption of smokeless chulha. Thus, there is need of launching more and more programmes by government.

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