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Indoor air quality and respiratory symptoms among children and women

Indoor air pollution is shown to be significantly associated with respiratory diseases especially in preschool children and women. The study was conducted to find the prevalence of recurrent respiratory symptoms and its association with environmental factors.

A cross sectional study was carried out in a low income community in Kotte MOH area. A survey of 397 houses revealed: availability of a separate room for sleeping (63.2%) sleeping area being overcrowded (68.4%) and inadequately ventilated (93.5%), use of

firewood for cooking (65.9%) a separate place for cooking, (76.3%). In 49% of the houses people smoked indoors and burnt mosquito coils, daily. Pets were rearing in 30% of the houses.

In 187 households (45.3%) there was at least one 'sick' person (a child or woman)with a history of recurrent respiratory symptom/s during the past six months. Such households associated significantly with firewood as cooking fuel and inadequately ventilated room/place showed a three fold increase compared to sleeping in adequately ventilated space {OR=2.8 (1.04-8.760}.

The mean respirable dust concentration was higher in houses using firewood as cooking fuel compared to those using other fuel. However, both concentrations exceeded the WHO recommended standard. Even though mean differences between expected and observed Peak Espiatory Flow Rates were greater among women cooking using firewood than those using other fuel, this difference was not statistically significant($t=0.693$, $t_{0.05,49}=2.02$, $p>0.05$).

Forty nine point two percent of women (.40 years), 31.1% of children (,10 years) had at least one recurrent respiratory symptom during the past 6 months. Inadequately ventilated sleeping area and using firewood for cooking were the only risk factors that associated significantly in developing respiratory symptoms.