

Abstract:

BACKGROUND: The kerosene stove is a common cooking appliance in lower and middle income households in Kenya and if it explodes, life threatening thermal burn injuries may be sustained by those using the appliance. Women tend to be victims more frequently since traditionally they are the ones who are involved in cooking. **OBJECTIVES:** The aim of this study was to determine risk factors predisposing to kerosene stove explosion burns seen at Kenyatta National Hospital. **MATERIALS AND METHODS:** The study was a prospective longitudinal descriptive study carried out at the Kenyatta National Hospital. Forty-eight patients who met the inclusion criteria were recruited into the study over a period of 6 months from November 2010 to April 2011 and the data was collected using a structured questionnaire. The analysis, using SPSS version 17.0 was done by associating occurrence of injury to: age, sex, socioeconomic status and level of education of patient. Charts and tables were used to present the results. **RESULTS:** The mean age of patients who sustained kerosene stove explosion burns was 23.6 years ($SD \pm 11.7$) with the commonest age group being 20-39 years. More females were affected than males by a ratio of 7:3 and ninety two percent of those who sustained these burns were either from poor or lower middle socio-economic class. Stove explosions occurred mainly during cooking and when kerosene refill was being done. Most of the patients (63%) reported having bought kerosene from fuel vendors and almost all explosions were caused by the wick type of stove (98%). **CONCLUSION:** Young females from poor socioeconomic background were found to be at a higher risk for kerosene stove explosion burns. The wick stove is a common cause of burns especially when users unwittingly refill it with kerosene when already lit resulting in an explosion. Prevention can be done through evidence based public health education targeting the groups at risk and enactment of relevant laws.