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Abstract:

Most hazardous health effects of activities in small scale industries may not be apparent immediately, however they emerge much later in the life of the exposed individuals. One such small scale industrial activity, is spray painting in informal auto garages, popularly known in Kenya as “Jua Kali garages”. Although various disease symptoms may be associated with spray painting, respiratory and skin diseases are the major ones. The objective of this study therefore, was to establish occupational health hazards associated with spray painting in small scale auto garages in three selected locations of Embakasi division. To carry out the study, which took three months (June–August 2010), pre-tested questionnaires and checklists were administered to spray painters in the selected auto garages. Key informant individuals (KII) were interviewed to get details of disease symptoms and other issues to support the information captured by the questionnaires and checklists. A sample population of two hundred and seven spray painters was selected from small scale auto garages in the study area, their age ranged between 17-62 years, with 34% of the population being below 25 years. Half (51%) of the spray painters had been in this occupation for between 1-5 years. 65.3% of them had attained primary education, while the rest (34.7%) had secondary level of education. It was observed that, the main activities in the study garages were scraping off the old paints and spray painting. The two activities posed an exposure due to dust from old paints and over spray paint mists within the breathing zone of unprotected spray painters, and therefore data on asthmatic and bronchitis symptoms, and eye problems was collected, edited, coded and analyzed by using statistical package for social sciences (SPSS). Chi-square test of significance was used to measure association between the disease symptoms and exposure time, application methods, and amounts and types of paints. The analyzed data was presented using percentages, frequency tables and bar charts. Painters’ health seeking behaviors and presence of the disease symptoms associated with this occupation were also studied. Application methods had a significant relationship between asthmatic symptoms, (_² = 18.72338; df = 2; p = 0.00009), but non between bronchitis symptoms (_² = 0.055885; df = 2; p = 0.97246). Exposure time had no significant relationship between all disease symptoms in the study (asthmatic symptoms; _² = 3.75855; df = 3; p = 0.28871, bronchitis; _² = 6.4773; df = 3; p = 0.09056 and eye problems; _² = 2.33641; df = 3; p = 0.50558). Types and amounts of paint also had no significant relationship between all diseases symptoms. According to the study, this was due to onset of the disease symptoms within a short duration of exposure. 85.7% and 67.3% of all the spray painters had bronchitis and asthmatic symptoms respectively, while 49.3% had eye problems. This indicated a high prevalence of disease symptoms associated with spray painting among the spray painters in the study area, who also had poor health seeking behaviors. Health hazard awareness creation among all stakeholders was recommended to ensure health and safety of workers and further research in the field, especially effectiveness of interventions.