Title: Factors associated with occupational allergic conjunctivitis among school teachers in Bahati division, Nakuru North District, Kenya

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Abstract: Hundreds of million of people throughout the world work under unsafe conditions resulting in occupational diseases and allergies. Allergic conjunctivitis is a common problem affecting about 20% of the world's and Kenyan population. Untreated allergic conjunctivitis can cause injury to the conjunctiva and the eye lids while some of the drugs used to treat can cause life threatening diseases or can be sight threatening. It is therefore important to avoid those factors that cause the allergic conjunctivitis as a way of controlling and preventing it. This study sought to investigate the factors that influence the development of occupational allergic conjunctivitis among the school teachers of Bahati Division. The study was cross sectional and comparative in nature. A total of 246 school teachers and 246 non teachers were selected randomly. Questionnaires were used to collect information about the presence or absence of allergic conjunctivitis among the respondents. The SPSS software package (version 12.0 for windows) was used for data analysis. The results showed that 51.2% teachers and 25.6% non teachers suffered from allergic conjunctivitis. There was an association between teaching occupation and allergic conjunctivitis (p<0.05 at 95% CL). There was no association between knowledge and development of allergic conjunctivitis (p>0.05 at 95% CL). There was an association between allergic conjunctivitis and chalk use (OR=5.027; 95% CI = 1.063-23.766). Chemicals used in teaching science subjects at schools do not cause significant allergic conjunctivitis to school teachers (p>O.05 at 95% CL). The research study concludes that there is an association between teaching occupation and development of allergic conjunctivitis. It also concludes that knowledge on causes and symptoms of allergic conjunctivitis does not influence its development and that there is no significant difference in prevalence of allergic conjunctivitis between the teachers who teach science and those who do not. Therefore the study recommends that school chalk be replaced with other suitable writing materials. Further studies on clinical research to establish the severity of allergic conjunctivitis among the susceptible teachers at different levels of chalk dust is recommended in order to come up with a threshold for the amount of chalk dust that one should be exposed to. The research study also recommends that a study be carried out on the seasonal variations of allergic conjunctivitis so that people may be sensitized on how to avoid the seasonal trigger factors.