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Identifying factors associated with severity of asthma in Kegalle District

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Asthma is a complex illness that leads to wheezing, coughing, chest tightness and shortness of breath. The exact factors associated with the severity have not yet been clearly identified. Through this research, factors that significantly affect the severity and the relationship between those identified factors and severity level were examined. A study on factors associated with the severity of Asthma was undertaken among Sri Lankan asthmatic patients in the Kegalle District. The data were collected between May and June in 2012.

The target population was the registered asthmatic patients in the main chest clinic in the Kegalle District. The sampling method was based on the simple randomized sampling procedure. The data were obtained by distributing questionnaires to a sample of 225 asthmatic patients of the chest clinic. The statistical significance was considered at 5% significance level.

The forward stepwise binary logistic regression analysis was done to identify factors affecting the severity of asthma. Severity of asthma was considered using two levels of the disease. They were severe (the disease occurs daily) and not severe (the disease does not occur daily). The results showed that the factors, living in urbanized areas, having stress, cigarette smoking, exposing to smoke from mosquito coils and other chemical gasses had a strong effect on the severity of asthma. Of them, exposing to smoke of mosquito coils was the most significant factor for asthma to be severe and the probability of being severe rather than being not severe increased by 24.43 by exposing to smoke of mosquito coils rather than not exposing to smoke from mosquito coils. Further analysis was done for male and female patients separately. For male patients, the above factors were significant and for female patients, exposure to household dust had a significant effect on the severity of asthma.

Due to practical limitations, the study was carried out only in the Kegalle District, but it can be extended to all the other districts as well.