

ABSTRACT

This study examined the role of different risk factors that could be related to incidence of pulmonary tuberculosis in children through a case control study using both descriptive and analytical approaches. A sample of 300 subjects consisting of 150 cases and 150 controls was selected from Lahore using a questionnaire and direct interviews. Cases were selected from Gulab Devi Hospital and Mayo Hospital Lahore while controls were selected from attendants of patients and other healthy children. All children of age below 15 years were selected for this study. For bivariate analysis, the chi-square and Phi/V statistics are used. For the purpose of multivariate analysis, the binary logistic regression was run by using the SPSS (version-18) to observe the significant risk factors and prediction of the model. In the descriptive analysis, it was observed that risk of pulmonary tuberculosis increases with the increase in contact with person already suffering from tuberculosis. Family history also increases the risk of pulmonary tuberculosis while better nutritional health, stability of household income and health education could prevent the disease. Furthermore, similar results were observed in the bivariate analysis. Logistic regression model was fitted to overall data to find possible risk factors. Ten variables were found to be significantly related to tuberculosis in which three factors were contributing towards the disease while seven were protective. History of contact with an active TB case, number of persons sleeping in one bedroom and family history were found risk factors for TB with odds ratio 5.879, 11.809 and 6.846 respectively. Number of rooms in house (OR=0.151), housing ventilation (OR=0.045), nutritional status (OR=0.082), stability of household income (OR=0.133), health education (OR=0.076), income (OR=0.026) and age (OR=0.043) were found protective factors for TB.

Key Terms: Tuberculosis, Pediatric Tuberculosis, Risk Factors, Logistic Regression, Odds ratio