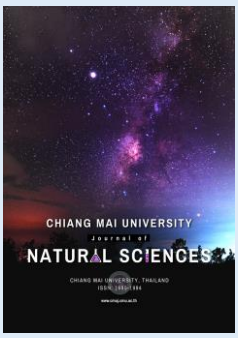

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Research article

Respiratory Health Implications among Wet-Blue Leather Tannery Workers of Kasur

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Abstract Work-related respiratory diseases have imperative role in the globular burden of occupational lung diseases throughout the world. These respiratory disorders can be caused by environmental hazards in the workplace and account for 10-20% of all chronic lung diseases. It is surprising that in Pakistan, scarce data is available on the pulmonary health of tannery workers. Therefore, this study aimed to determine the respiratory-specific health status of wet-blue leather tannery workers in Kasur city, Pakistan. A sample of 227 tannery workers engaged in four different tanneries was selected as a sample of convenience. A control group of 112 participants independent from exposure was also selected from the local community. Respiratory health was determined through an adopted symptom-based questionnaire and pulmonary function tests (PFTs). These tests were carried out by using a portable spirometer, during September-December 2019. A multiple Linear regression analysis was performed to analyze the amount of variance in PFTs by demographics and respiratory symptoms. Among tannery workers, the complaints of respiratory symptoms were 27.8% as compared to 21.4% of the control group. While based on the PFTs, total cases of impaired-pulmonary function among tannery workers were 34.3% as compared to 19.7% of the control. A statistically significant relationship was found between age, job duration, education, respiratory symptoms, and pulmonary function parameters. This study will contribute to generate baseline data of respiratory health status of the tannery workers. Further studies are recommended to find an association between occupational factors and workplace-related respiratory problems to reduce the burden of occupational diseases.

Keywords: Occupational diseases, Lung diseases, Respiratory function tests, Spirometry, Workplace

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