SAFETY MEASURES AND HEALTH HAZARDS AMONG COAL MINERS

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Background and Aims: Coal is a naturally occurring mineral and a large source of fossil fuel throughout the world. Its importance in Pakistan increases as other fuels, like petroleum are scarce and expensive coal is abundant and cheap. Coal dust comprise of carbon, hydrogen, oxygen, nitrogen, sulphur, quartz and some traces of iron, lead and copper. These particles are not degradable and deposit in lung throughout the life of coal mine worker. These particles resulting in fibrosis of lung, initially starting as chronic bronchitis and asthma and finally end up as coal mine worker pneumoconiosis. Almost no significant work is done at major levels either from the government or from private sector, regarding studying the health hazards and their effects among mine workers of Pakistan. The objectives of our study was to find out safety measures practices by coal miners and the occupational health hazards which are suffering from coal mine extraction.

Methods: A cross-sectional descriptive type of study has been carried out. Population targeted during this case study was the coal miners of Lakhra Coal field, Sindh. Random sampling was done and sample size was 100 coal mine workers. The questionnaire we devised for this study which was then presented to individuals with different educational status, field of work and family background. SPSS software is used for data analysis.

Results: Out of 100 participants, 77% are illiterate. Half (50%) of the workers think that they have risk to their health in this job. Majority of workers (>90%) are not using proper safety measures. 53% of the workers think that safety measures are necessary and required during their work. Nearly 60% of the workers have the back pain and pain in their hands. 39% of the workers have heart burn. Less than 60% of the workers have the symptoms of lung disease like cough and trouble in breathing. Majority (83%) of the workers are addicted out of them 76% are addicted to naswar. 84% of the workers have not got any training before joining to job.

Conclusions: Majority of the diseases found in coal mine workers are due to the improper use of safety measures. Proper supply of protective measures, regular medical check up, and different health based educational programs help to improve the quality of the life of coal mine workers.

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