

Gambaran fungsi paru dan faktor faktor yang berhubungan pada pekerja terpapar debu bagasse di Pabrik Gula X Kabupaten Lampung Tengah = Lung function profile and associated risk factors among workers exposed to bagasse dust in a Sugar Factory at Central Lampung District

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Abstrak

Pendahuluan : Pekerja industri gula memiliki risiko terkena gangguan fungsi paru akibat pajanan debu, khususnya debu bagasse (tebu). Penelitian ini bertujuan untuk mengetahui prevalensi kejadian gangguan fungsi paru pada pekerja pabrik gula di Kabupaten Lampung Tengah, serta hubungannya dengan faktor - faktor karakteristik pekerja dan pekerjaan.

Metode : Desain penelitian adalah comparative cross sectional melibatkan 144 pekerja pabrik gula : 72 pekerja bagian factory dan 72 pekerja bagian plantation. Pengumpulan data dilakukan dengan wawancara, pengamatan dan pemeriksaan meliputi pengukuran kadar debu lingkungan dan pemeriksaan spirometri pada pekerja. Variabel yang diteliti meliputi usia, kebiasaan merokok, status gizi, penggunaan alat pelindung diri (APD) masker, masa kerja, jam kerja per minggu dan lokasi pekerjaan. Analisis data menggunakan uji chi square.

Hasil dan Kesimpulan : Kadar debu total di lingkungan bagian factory 0,0586 mg/m³ lebih rendah dibandingkan bagian plantation 0,0843 mg/m³. Kedua nilai tersebut jauh dibawah nilai ambang batas. Prevalensi gangguan fungsi paru 8,33 %. Di bagian factory 5,56 % dan di bagian plantation 11,1 %. Gangguan fungsi paru terbanyak ditemukan adalah gangguan fungsi paru obstruktif. Variabel yang berhubungan dengan gangguan fungsi paru adalah penggunaan APD (masker) (ORadj = 12,15; 95% CI: 1,14 - 102,62) dan status perokok (ORadj = 9,73; 95% CI: 1,14 - 82,75).

Saran : Perlu dilakukan evaluasi fungsi paru berkala, konseling bagi pekerja agar berhenti merokok dan selalu menggunakan alat pelindung diri. Perlu dilakukan penelitian lebih lanjut untuk menilai kadar debu respirabel, komposisi debu, dan pengaruhnya terhadap fungsi paru pekerja.

.....**Introduction :** Workers in sugar factory are at risk to suffer from lung function disorder due to exposure to dust, especially bagasse dust. The objective of this study is to identify the prevalence of lung function disorder among workers in a sugar factory in Central Lampung district and associated individual- and work-related factors.

Method : The study design used a comparative cross sectional method, involving 144 sugar factory workers 72 among them were from factory department and 72 other workers from plantation. Data collection used interview, observation, measuring of dust in work environment and lung function measurement using spirometry. The variables which studied were age, smoking habit, nutritional status, use of personal protective equipment (PPE) mask, time of work, working hours in week, and job location. Data was analyzed with chi square test.

Result and Conclusion : Total dust level in the factory department was 0.0586 mg/m³, lower compared to the level in plantation department which was 0.0843 mg/m³. Both level were below the TLV. The prevalence of lung function disorders was 8.33 %. in the factory department 5.56 % and in the plantation 11.1 %. the most lung function disorder cases found among workers was obstructive lung function disorder.

Variables associated to lung function disorders found were use of PPE (mask) (ORadj = 12.15; 95% CI: 1.44 - 102.62) and smoking status (ORadj = 9.73; 95% CI: 1.14 - 82.75).

Recommendation : Periodic lung function evaluation, workers counseling to stop smoking and use of PPE. Another study should be conducted to on respirable dust, dust composition and it's effect on workers lung function.