

INTISARI

Latar Belakang: Perkembangan industri selain menimbulkan dampak positif juga menimbulkan dampak negatif, terutama pencemaran udara di lingkungan kerja. Pekerja industri batu marmer memiliki risiko tinggi akibat paparan debu batu marmer. Penimbunan debu dalam saluran pernafasan akan menimbulkan gangguan kesehatan terutama gangguan fungsi paru dalam jangka waktu yang lama.

Tujuan penelitian: Mengetahui hubungan karakteristik pekerja dan paparan debu personal terhadap gangguan fungsi paru pada pekerja PT. X di sentra industri batu marmer Kabupaten Tulungagung.

Metode Penelitian: Penelitian ini merupakan penelitian observasional analitik dengan desain *cross sectional*, jumlah sampel adalah sebagian dari jumlah seluruh pekerja di PT. X dengan jumlah 30 responden. Analisis data untuk mengetahui hubungan karakteristik individu dan paparan debu personal dengan kapasitas vital paru pekerja, menggunakan analisis univariat, bivariat dengan uji chi square dan multivariate dengan uji regresi logistik.

Hasil Penelitian: Berdasarkan hasil penelitian, variabel yang mempunyai hubungan dengan kapasitas vital paru yaitu, masa kerja dengan p value = 0.02 ($p < 0.05$), lama kerja dengan p value = 0.04 ($p < 0.05$), penggunaan APD masker dengan p value = 0.01 ($p < 0.05$), kadar paparan debu personal dengan p value = 0.04 ($p < 0.05$). Sedangkan, pada variabel yang tidak berhubungan yaitu umur dengan p value = 0.46 ($p > 0.05$), status gizi dengan p value = 1.00 ($p > 0.05$), status merokok dengan p value = 0.45 ($p > 0.05$).

Kesimpulan: Ada hubungan antara masa kerja, lama kerja, penggunaan APD masker, dan kadar paparan debu personal dengan kapasitas vital paru. Namun secara bersamaan tidak terdapat hubungan antara lama kerja dengan kapasitas vital paru pada pekerja industri marmer.

Kata Kunci: Karakteristik Individu, Paparan Debu Personal, Kapasitas Vital Paru

ABSTRACT

Background: The development of the industry does not only cause positive impacts, but also negative impacts, especially air pollution in the working environment. Workers in marble industry have a high risk of exposure to dust marble. Accumulation of dust in the respiratory tract will cause health problems, especially in pulmonary function impairment in the long term.

Objective: To understand the relationship between the characteristics of labor and personal dust exposure with lung function impairment of the X company workers in the marble industry center in Tulungagung.

Methods: This research is an analytic observational study with cross sectional design, the number of samples is a part of the total of workforce in the center of the marble industry with the number of 30 respondents. An analysis of data in order to determine the relationship of the characteristics of individual and personal dust exposure with lung vital capacity of workers, by using univariate, bivariate with chi square test and multivariate logistic regression.

Results: Based on this research, the variables that have a relationship with lung vital capacity, namely, years of having the p value = 0:02 ($p < 0.05$), longer working with p value = 0:04 ($p < 0.05$), the use of PPE mask with p value = 12:01 ($p < 0.05$), personal dust exposure levels with p = 0:04 ($p < 0.05$). Meanwhile, the variables that do not relate that age with p value = 0:46 ($p > 0.05$), nutritional status and the p value = 1:00 ($p > 0.05$), smoking status with p value = 0:45 ($p > 0.05$).

Conclusion: There is a relationship between individual characteristics based on years of working, length or working, the usage of PPE mask and personal dust exposure with lung vital capacity of workers in the marble industry. But at the same time there is no relationship between the length of work with vital capacity in the marble industry workers.

Keywords: Individual Characteristics, Personal Dust Exposure, Lung Vital Capacity