

ABSTRACT

Printing is an industry whose production process is inseparable from the dangers of chemical risks, one of which is benzene. The benzene content is found in printing ink, glue, and oil. Benzene is a chemical that are carcinogenic to humans. If the levels of benzene in the work environment were high, it would impact the health of workers. This study aims to determined the relationship of worker characteristics and contact frequency of benzene exposure source with health complaints in offset printing Sidoarjo.

This research was an analytic observational with cross sectional design. The population in this study was 30 printing workers and the sample was 24 printing workers. The sampling technique that was used simple random sampling. The independent variable consists of worker characteristics and contact frequency of benzene exposure sources. The dependent variable was health complaints of printing workers. The data were collected by using interviews with questionnaires and environmental observations. The data analysis technique used Fisher's exact test.

The results showed that 10 workers (41,7%) were 30-38 years old, 23 workers (95.8%) had the habit of washing hands, 17 workers (70.8%) used PPE with a good, smoking habits with category no-smoking were 19 workers (79.2%), and work tenure was at most ≥ 10 years. The contact frequency of benzene exposure source with catogery often was 13 workers (54,2%). The results of the analysis test showed a relationship between work tenure ($p=0,041$) and contact frequency of benzene exposure sources ($p=0,019$) with health complaints in printing workers.

The conclusion of this research was the health complaints felt by workers caused by tenure of workers and contact frequency of benzene exposure sources. The company is advised to carry out health checks regarding benzene metabolites regularly and to provide then require wearing PPE gloves when direct contact with the chemical used.

Keywords : worker characteristics, contact frequency of benzene exposure, and health complaints.

ABSTRAK

Percetakan merupakan suatu industri yang proses produksinya tidak terlepas dari bahaya risiko bahan kimia salah satunya yaitu benzena. Kandungan benzena terdapat pada tinta cetak, lem, dan oli. Benzena merupakan salah satu bahan kimia yang bersifat karsinogenik pada manusia. Apabila kadar benzena di lingkungan kerja tinggi maka akan menimbulkan dampak kesehatan pekerja. Penelitian ini bertujuan untuk mengetahui hubungan karakteristik pekerja dan frekuensi kontak sumber pajanan benzena dengan keluhan kesehatan di percetakan *offset* Sidoarjo.

Penelitian ini observasional analitik dengan rancang bangun *cross sectional*. Populasi penelitian ini sebanyak 30 pekerja dan sampel dalam penelitian ini yaitu 24 pekerja percetakan. Teknik pengambilan sampel menggunakan *simple random sampling*. Variabel bebas yaitu karakteristik pekerja dan frekuensi kontak sumber pajanan benzena. Variabel terikat penelitian ini yaitu keluhan kesehatan pekerja percetakan. Pengumpulan data menggunakan wawancara dengan kuesioner dan observasi lingkungan. Teknik analisis data menggunakan uji *fisher's exact*.

Hasil penelitian pekerja didapatkan bahwa pekerja berusia 30-38 tahun sebanyak 10 pekerja (41,7%), pekerja memiliki kebiasaan cuci tangan sebanyak 23 pekerja (95,8%), penggunaan APD dengan kategori baik sebanyak 17 pekerja (70,8%), kebiasaan merokok dengan kategori tidak merokok sebanyak 19 pekerja (79,2%), dan masa kerja pekerja paling banyak ≥ 10 tahun. Frekuensi kontak sumber pajanan benzena kategori sering sebanyak 13 pekerja (54,2%). Hasil uji analisis terdapat hubungan antara masa kerja ($p=0,041$) dan frekuensi kontak sumber pajanan benzena ($p=0,019$) dengan keluhan kesehatan pada pekerja percetakan.

Kesimpulan pada penelitian ini yaitu keluhan kesehatan yang dirasakan oleh pekerja disebabkan oleh masa kerja pekerja dan frekuensi kontak dengan sumber pajanan benzena. Perusahaan disarankan untuk melakukan pemeriksaan kesehatan terkait metabolit benzena secara berkala serta menyediakan dan mewajibkan menggunakan APD sarung tangan ketika kontak langsung dengan bahan kimia yang digunakan.

Kata kunci : karakteristik pekerja, frekuensi kontak sumber pajanan benzena, dan keluhan kesehatan