

ABSTRACT

RELATIONSHIP BETWEEN XYLENE EXPOSURE AND NERVOUS DISORDERS COMPLAINTS ON SHOE CRAFTSMEN IN KECAMATAN BENOWO SURABAYA

This study aims to examine the relation between xylene exposure and complaints of nervous disorders among shoes craftsmen in Kecamatan Benowo - Surabaya.

This research was a quantitative research with cross sectional approach. The sample for this study comprised 30 shoes craftsmen. Xylene concentration measurements used laboratory test. The method for early detection of complaints of nervous disorders was an interviewed using the German version of the Q18 questionnaires.

thirty shoe craftsmens completed a symptom questionnaires 18 germany version. Q18 questionnaire results showed twenty five workers resulted the positive neurotoxic symptoms from the questionnaire results (83%) of respondents had complaints of neurological disorders (answers 'yes' to a number of 5- 9 questions in the german version of the Q18 questionnaire).

The results showed the highest xylene concentration value of 19.2 ppm and still below the Time-weighted average (TWA) (100 ppm). Risk quotient (RQ) calculations obtained 12 (40%) of respondents have health risks.thirty shoe craftsmens completed a symptom questionnaires 18 Germany version. Q18 questionnaire results showed twenty five workers had the positive neurotoxic symptoms from the questionnaire results (83%) of respondents had complaints of neurological disorders (answer 'yes' to a number of 5- 9 questions in the German version of the Q18 questionnaire).

Exposure data at every time they worked: 0.0016 to 19.2 ppm. By reference to the regulation of Labor and Transmigration Minister No.5/2018,the concentration of xylene found not exceeded the threshold limit value 100 ppm. The TLV is 100 ppm.

In chi-square tests, the results of the relation test showed that there were found a not significant relation with the symptoms of nervous disorders complaints on shoe craftsmen with xylene exposure, there were no relation between RQ and nervous disorders complaints disorders , there were no relation between age, years of work, smoking habits and BMI with complaints of nervous disorders , there were no correlation between the use of PPE and nervous systems

This research concluded that there was no relation between xylene exposure with complaints about study of nervous disorders among shoes craftsmen in the Kecamatan Benowo, Surabaya.

Keywords: Xylene exposure, RQ, Characteristics of respondents, Complaints of Nervous Disorders.

ABSTRAK

**HUBUNGAN ANTARA PAPARAN XILENA DENGAN KELUHAN
GANGGUAN SARAF PADA PENGRAJIN SEPATU
DI KECAMATAN BENOVO SURABAYA**

Penelitian ini bertujuan untuk melihat hubungan antara paparan xilena dengan keluhan gangguan saraf pada pengerajin sepatu di kecamatan Benowo Surabaya. Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross sectional.

Sampel dalam penelitian ini adalah 30 pengrajin sepatu. Pengukuran konsentrasi xilena menggunakan uji laboratorium. Metode untuk mendeteksi dini keluhan gangguan saraf yaitu wawancara menggunakan kuesioner Q18 versi Jerman. Tiga puluh pengrajin sepatu menyelesaikan kuesioner gejala 18 versi Jerman. Hasil kuesioner Q18 menunjukkan dua puluh lima pengrajin sepatu mengalami keluhan gangguan saraf positif dari hasil kuesioner. Hasil kuesioner Q18 menunjukkan 25 responden yaitu 83% responden memiliki keluhan gangguan saraf (menjawab 'ya' pada sejumlah 5 hingga 9 pertanyaan dalam kuesioner Q18 versi Jerman).

Sampel udara diperoleh data bahwa paparan xilena pada pengrajin sepatu setiap kali mereka bekerja antara 0.0016 dan 19.2 ppm. Konsentrasi xylene yang ditemukan pada pekerja tidak melebihi nilai ambang batas (NAB) 100 ppm. NAB yang diperkenankan 100 ppm. Mengacu pada Peraturan Menteri Tenaga Kerja dan Transmigrasi No.5 /2018, konsentrasi xylene yang ditemukan pada pekerja tidak melebihi nilai ambang batas (NAB) 100 ppm. NAB yang diperkenankan 100 ppm.

Dalam uji chi-square Hasil dari uji hubungan menunjukkan bahwa tidak terdapat hubungan signifikan paparan xilena dengan keluhan gangguan saraf, tidak terdapat hubungan signifikan quotient risiko (RQ) dengan keluhan gangguan saraf, tidak terdapat hubungan usia, masa kerja, kebiasaan merokok dan IMT dengan keluhan gangguan saraf tidak terdapat hubungan penggunaan APD dengan keluhan gangguan saraf

Kesimpulan penelitian ini adalah tidak terdapat hubungan antara paparan xilena dengan keluhan gangguan saraf pada pengrajin sepatu di kecamatan Benowo Surabaya.

Kata kunci: paparan xilena, RQ, karakteristik responden, Keluhan Gangguan Saraf.