

ABSTRACT

Musculoskeletal Disorders (MSDs) are one of the most common occupation-related pain experienced by workers. It can be caused by excessive muscles stretching, excessive repetition, awkward postures, ergonomic risk factors, combining risk factors and individual risk factors. This study aimed to analyze the causative risk factors of subjective complaints of musculoskeletal disorders (MSDs).

This was an observational study with cross sectional approach. The subjects were 14 workers in Circular Loom Division of PT KertaRajasa Raya, Sidoarjo. They were selected according to inclusive criteria. Data were collected using questionnaire and field-observation. Various analysis tools were employed. Data on work attitude were analyzed using OWAS, data on muscle stretching were analyzed using RWL-LI method, and data of MSDs subjective complaints were analyzed using NBM questionnaire. The other data, vibration complaints, microclimate complaints, and individual factors, were analyzed based on the questionnaire results.

The result showed that all of the workers suffered from subjective complaints of MSDs. Work attitude have the strongest relation to the subjective complaints of MSDs. Stretching on the destination muscle, repetitive activities, vibration complaints, microclimate complaints, and exercise habit have strong relation to the subjective complaints. On the other hand, the stretching on the origin muscle, gender, smoking habit, working hours, and body mass index have relatively weak relation to the subjective complaints of MSDs.

The company is advised to provide training, install poster related to ergonomics, and add a good and correct lifting procedure to its work instructions.

Keywords: Subjective complaints of MSDs, excessive muscle stretching, repetitive activity, work attitude, exercise habit.

ABSTRAK

Gangguan sistem muskuloskeletal (MSDs) merupakan salah satu Penyakit Akibat Kerja (PAK) yang paling sering dialami oleh pekerja. Gangguan ini dipengaruhi oleh beberapa faktor seperti peregangan otot yang berlebihan, aktivitas yang berulang, sikap kerja yang tidak alamiah, faktor sekunder, penyebab kombinasi dan faktor individu. Tujuan penelitian adalah menganalisis faktor penyebab keluhan subjektif MSDs.

Penelitian ini menggunakan tehnik observasional dengan rancang bangun *cross sectional*. Responden pada penelitian ini adalah pekerja divisi *circular loom* PT. Kerta Rajasa Raya, Sidoarjo yang berjumlah 14 orang berdasarkan kriteria inklusi peneliti. Data diperoleh dari hasil kuisioner dan observasi lapangan. Data sikap kerja dianalisis menggunakan OWAS, data peregangan otot dianalisis menggunakan metode RWL-LI, data keluhan subjektif MSDs menggunakan kuisioner NBM, data keluhan getaran, keluhan mikroklimat, dan faktor individu dianalisis berdasarkan hasil kuisioner.

Hasil penelitian menunjukkan bahwa seluruh responden mengalami keluhan subjektif MSDs. Variabel sikap kerja memiliki keeratan korelasi yang sangat kuat dengan keluhan subjektif MSDs. Variabel peregangan otot pada titik destinasi, aktivitas berulang, keluhan getaran, keluhan mikroklimat, kebiasaan olahraga memiliki keeratan korelasi yang bersifat kuat dengan keluhan subjektif MSDs. Variabel peregangan otot pada titik origin, jenis kelamin, kebiasaan merokok, masa kerja, indeks masa tubuh memiliki keeratan korelasi yang bersifat sangat lemah dengan keluhan subjektif MSDs.

Perusahaan disarankan untuk memberikan pelatihan, pemasangan media poster terkait ergonomi, serta menambahkan prosedur mengangkat yang baik dan benar pada instruksi kerjanya.

Kata kunci: Keluhan MSDs, peregangan otot berlebih, aktivitas berulang, sikap kerja, kebiasaan olahraga