

ABSTRAK

Sistem informasi dan komunikasi terkomputerisasi telah memudahkan pekerja dalam menyelesaikan tugas. Namun, berbagai keluhan banyak ditemukan pada pengguna komputer seperti keluhan bahu, punggung bawah, leher, mata, *carpal tunnel syndrome*, kelelahan dan stress. Keluhan tersebut dapat menurunkan motivasi dan performa kerja. Salah satu penyebab keluhan tersebut adalah duduk berkepanjangan di depan komputer. Tujuan penelitian ini adalah mengetahui pengaruh peregangan sebelum bekerja dan di sela waktu kerja terhadap performa *Bourdon Wiersma test* dan denyut jantung.

Responden penelitian ini adalah 11 orang perempuan diberikan tiga perlakuan, yaitu duduk tanpa peregangan (kontrol), duduk diselingi peregangan setiap 2 jam (2STRETCH) dan duduk diselingi peregangan setiap 1 jam (1STRETCH). Setiap responden melakukan peregangan sebelum bekerja dan di sela waktu kerja. Responden diberi tugas untuk memasukkan data dalam sistem informasi simulasi selama dua jam. *Bourdon Wiersma test* dilakukan setelah melakukan peregangan di awal dan akhir perlakuan untuk mengukur kecepatan, ketelitian, dan konsistensi. Denyut jantung diukur secara kontinyu dari awal hingga akhir perlakuan.

Hasil penelitian menunjukkan bahwa peregangan di awal kerja dapat meningkatkan kecepatan, ketelitian, dan konsistensi. Perbedaan frekuensi peregangan di sela waktu kerja pada ketiga perlakuan hanya memberikan pengaruh signifikan pada kecepatan sedangkan pada ketelitian dan konsistensi tidak terdapat pengaruh yang signifikan. Peningkatan denyut jantung terjadi saat peregangan dilakukan. Peregangan memberikan pengaruh signifikan pada denyut jantung dibandingkan duduk. Perbedaan frekuensi peregangan di sela waktu kerja pada ketiga perlakuan tidak memberikan pengaruh signifikan pada denyut jantung selama dua jam perlakuan.

Kata kunci: *Bourdon Wiersma Test*, Denyut Jantung, Duduk Berkepanjangan, Peregangan, Performa kerja.

ABSTRACT

Computerized information and communication systems provide workers to complete tasks easier. In fact, there are many health complaints felt by computer users such as shoulder pain, lower back pain, neck pain, eye pain, carpal tunnel syndrome, fatigue and stress. These complaints imply decreasing motivation and work performance. One of the causes is prolonged sitting in front of the computer. This study was conduct to determine the effect of doing stretching before and between working time to performance level of the Bourdon Wiersma test and heart rate measures.

Respondents in this study were 11 females were given three treatments, which were sitting without stretching (control), sitting interspersed with stretching every 2 hours of working (2STRETCH) and sitting interspersed with stretching every 1 hour of working (1STRETCH). Each respondent was doing stretching before and between working time. Respondents were given task s to entry data in the simulation information system for two hours. The Bourdon Wiersma test was carried out after stretching at the beginning and end of the treatments to measure speed, accuracy, and consistency. Respondent's heart rate was measured continuously from the beginning until the end of the treatments.

The results showed that doing stretching at the beginning of working time could increase speed, accuracy, and consistency. The differences in stretches frequency between working times for three treatments has a significant effect to speed only. Meanwhile, it has no significant effect to accuracy and consistency. Heart rate increased when stretching has done. Stretching has a significant effect on heart rate compared to sitting. The differences in stretches frequency between working times for three treatments has no significant effect to heart rate for two hours of treatment.

Keywords: Bourdon Wiersma Test, Heart Rate, Prolonged Sitting, Stretching, Work Performance