

# HUBUNGAN VIBRASI DENGAN KELUHAN *CARPAL TUNNEL SYNDROME* PADA PENJAHIT DI KELURAHAN KEBONDALEM KECAMATAN PURWOKERTO TIMUR KABUPATEN BANYUMAS

## ABSTRAK

**Latar Belakang :** *Carpal tunnel syndrome* (CTS) merupakan kumpulan gejala dan tanda penyakit yang disebabkan oleh terjepitnya saraf medianus di terowongan karpal pada pergelangan tangan. Salah satu faktor risiko dari *Carpal Tunnel syndrome* adalah vibrasi yang dihasilkan dari alat kerja seperti mesin jahit.

**Tujuan :** Untuk mengetahui hubungan antara vibrasi dengan keluhan *Carpal Tunnel Syndrome* pada penjahit di kelurahan Kebondalem Kecamatan Purwokerto Timur Kabupaten Banyumas.

**Metode :** Penelitian ini merupakan penelitian observational analitik dengan desain cross-sectional. Teknik pengambilan sampel dengan menggunakan purposive sampling 32 sample pada populasi terjangkau yaitu penjahit di Kelurahan Kebondalem, Kecamatan Purwokerto Timur. Pengumpulan data dilakukan dengan wawancara menggunakan boston *Carpal Tunnel Syndrome questioner*, tes provokasi dan pengukuran vibrasi mesin jahit dengan alat vibration meter. Data dianalisis menggunakan uji *Chi-square*, uji *Fisher's Exact* dan uji regresi logistic berganda.

**Hasil :** Berdasarkan hasil penelitian didapatkan sebanyak 9 responden (28.1%) responden yang mengalami keluhan carpal tunnel syndrome, dan 21 responden (65.6%) bekerja dengan paparan vibrasi  $\geq 4 \text{ m/det}^2$  atau diatas ambang batas aman vibrasi. Berdasarkan uji chi-square didapatkan hasil nilai p-value 0,035 yang menunjukkan hubungan significant antara vibrasi dengan keluhan carpal tunnel syndrome. Pada uji regresi logistik berganda mendapatkan nilai p-value 0,035 yang menunjukkan vibrasi merupakan faktor yang paling berpengaruh terhadap keluhan *Carpal Tunnel Syndrome* pada penjahit di Kebondalem Kecamatan Purwokerto Timur.

**Kesimpulan :** Terdapat hubungan vibrasi dengan keluhan *Carpal Tunnel Syndrome* pada penjahit di Kelurahan Kebondalem Kecamatan Purwokerto Timur Kabupaten Banyumas.

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**Kata Kunci :** Vibrasi, *Carpal Tunnel Syndrome*, Penjahit

**THE RELATIONSHIP BETWEEN VIBRATION AND CARPAL TUNNEL SYNDROME COMPLAINTS IN TAILORS IN KEBONDALEM VILLAGE, EAST PURWOKERTO DISTRICT, BANYUMAS REGENCY**

**ABSTRACT**

**Background:** Carpal tunnel syndrome (CTS) is a group of symptoms and signs of disease caused by the pinching of the medianal nerve in the carpal tunnel on the wrist. One of the risk factors for Carpal Tunnel syndrome is vibration generated from work tools such as sewing machines.

**Objective:** To determine the relationship between vibration and complaints of carpal tunnel syndrome in tailors in Kebondalem village, East Purwokerto District, Banyumas Regency.

**Method :** This study is an observational analytical research with a cross-sectional design. The sampling technique uses purposive sampling of 32 samples in the affordable population, namely tailors in Kebondalem Village, East Purwokerto District. Data collection was carried out by interviews using the Boston Carpal Tunnel Syndrome questioner, provocation tests and vibration measurements of sewing machines with vibration meters. The data will be processed by bivariate and multivariate analysis using the Chi-square test and multiple logistic regression test.

**Results:** Based on the results of the study, there were 9 respondents (28.1%) who experienced carpal tunnel syndrome complaints. And 21 respondents (65.6%) worked with vibration exposure  $\geq 4 \text{ m/sec}^2$  or above the safe threshold of vibration. Based on the chi-square test, a p-value of 0.035 was obtained which showed a significant relationship between vibration and carpal tunnel syndrome complaints. In the multiple logistic regression test, a p-value of 0.035 was obtained, which showed that vibration was the most influential factor in the complaints of Carpal Tunnel Syndrome in tailors in Kebondalem, East Purwokerto District.

**Conclusion :** There is a Relationship between Vibration Frequency and Carpal Tunnel Syndrome Complaints in tailors in Kebondalem Village, East Purwokerto District, Banyumas Regency.

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**Keywords :** Vibration, Carpal Tunnel Syndrome, Tailor