

## **Nutritional Status and Physical Activity During Online Lectures on Symptoms of Carpal Tunnel Syndrome in College Students**

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### **ABSTRACT**

**Background :** In fact, students during the pandemic do more sedentary activities. This is among the reasons for an increase in nutritional status, and many students take advantage of excessive internet use. Therefore, it can cause discomfort in the limbs, especially in the wrists and fingers, where this is included in the symptoms of CTS.

**Objective :** Examine the relationship between nutritional status and physical activity on symptoms of Carpal Tunnel Syndrome (CTS) in students during online lectures.

**Method :** This research will be carried out in April – June 2023 at Diponegoro University offline for students of the faculty of medicine, faculty of public health, and faculty of psychology. This study is an observational study with a cross-sectional design. Nutritional status data is categorized according to BMI. Physical activity assessment was obtained through the Adobe Sedentary Activity Questionnaire (ASAQ). Assessment of symptoms of carpal tunnel syndrome through Darmounth Hitchcock Medical Center's Hand Clinic questionnaire. To analyze the bivariate, Rank Spearman's correlation test was used.

**Results :** Symptoms of Carpal Tunnel Syndrome in students are mild 77.9% with most nutritional status in the normal category 52.9%, sedentary physical activity classified as high 79.8%, repetitive movements at  $\geq 4$  hours 80.8%, and a history of hand fracture disease 1.9%. Sedentary physical activity was associated with carpal tunnel syndrome ( $p = 0.000$ ;  $r = 0.377$ ), but nutritional status, repetitive movements, and history of disease were not associated with carpal tunnel syndrome ( $p > 0.05$ ).

**Conclusion :** **Sedentary** physical activity is associated with symptoms of carpal tunnel syndrome.

**Keywords :** nutritional status, physical activity, repetitive movements, history of disease, symptoms of carpal tunnel syndrome.

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## Status Gizi Aktivitas Fisik Selama Kuliah Daring terhadap Gejala Carpal Tunnel Syndrome Pada Mahasiswa

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### ABSTRAK

**Latar belakang :** Faktanya, mahasiswa selama masa pandemi lebih banyak melakukan aktivitas *sedentary* yang merupakan salah satu penyebab terjadinya peningkatan status gizi serta mahasiswa banyak yang memanfaatkan penggunaan internet secara berlebihan. Oleh karena itu, hal tersebut dapat menyebabkan ketidaknyamanan pada anggota tubuh terutama pada pergelangan tangan dan jari dimana hal ini termasuk dalam gejala CTS.

**Tujuan :** Mengkaji hubungan status gizi dan aktivitas fisik terhadap gejala *Carpal Tunnel Syndrome* (CTS) pada mahasiswa selama kuliah daring.

**Metode :** Penelitian ini dilakukan dari bulan April hingga Juni 2023 di Universitas Diponegoro secara luring pada mahasiswa fakultas kedokteran, fakultas kesehatan masyarakat, dan fakultas psikologi. Penelitian dilakukan *observasional* dengan design *cross-sectional*. Data status gizi dikategorikan sesuai dengan IMT. Penilaian aktivitas fisik didapatkan melalui *Adolescent Sedentary Activity Questionnaire* (ASAQ). Penilaian gejala *Carpal Tunnel Syndrome* melalui kuesioner *Hand Clinic Darmouth Hitchcock Medical Center*. Untuk menganalisis bivariat, menggunakan uji korelasi *Rank Spearman*.

**Hasil :** Gejala *Carpal Tunnel Syndrome* pada mahasiswa tergolong ringan 77,9% dengan sebagian besar status gizi dalam kategori normal 52,9%, aktifitas fisik *sedentary* yang tergolong tinggi 79,8%, gerakan berulang pada waktu  $\geq 4$  jam 80,8%, dan Riwayat penyakit fraktur tangan 1,9%. Aktifitas fisik *sedentary* berhubungan dengan gejala *Carpal Tunnel Syndrome* ( $p = 0,000$  ;  $r = 0,377$ ), tetapi status gizi, gerakan berulang, dan riwayat penyakit tidak berhubungan dengan gejala *Carpal Tunnel Syndrome* ( $p > 0,05$ ).

**Kesimpulan :** Aktifitas fisik *sedentary* berhubungan dengan gejala *Carpal Tunnel Syndrome*.

**Kata Kunci :** Status Gizi, Aktifitas Fisik, Gerakan Berulang, Riwayat Penyakit, Gejala *Carpal Tunnel Syndrome*

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