



## ABSTRACT

**Title of Abstract** : Analysis of Contributing Factors Influencing Carpal Tunnel Syndrome Incidence Among Dental Practitioners  
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**Background** : One of the most common Musculoskeletal Disorders (MSD) in dentists is Carpal Tunnel Syndrome (CTS). The work of dentists with repetitive flexion and extension movements of the radiocarpal articulation can increase the risk of CTS. Patients with CTS most often experience numbness, tingling, and pain along the distribution of the median nerve, which can interfere with work.

**Objective** : This study aims to determine the factors that influence the occurrence of carpal tunnel syndrome in dentists.

**Research Methods/ Implementation Methods** : This study is an analytical observational study with a cross-sectional design. It included 144 dentists in Samarinda City as samples.

**Results** : The results of the study showed that 46 (31.9%) dentists experienced CTS complaints, and 98 (68.1%) dentists did not experience CTS complaints. The bivariate analysis showed that factors related to the risk of CTS ( $p < 0.05$ ) were Age, Nutritional Status, Repetitive Movements, Length of Work, and Length of Service. At the same time, factors unrelated to the risk of CTS were Gender. However, in the results of the logistic regression analysis, there were only three risk factors for CTS, namely Repetitive Movement Factor ( $p = 0.011$ ; OR = 4.44), Length of Work ( $p = 0.017$ ; OR = 3.137), and Length of Service ( $p = 0.048$ ; OR = 8.465).

**Conclusion/Lesson Learned** : Risk factors associated with CTS are Repetitive Movement, Length of Work, and Length of Service. Risk factors not associated with CTS are Age and Nutritional Status.

**Keyword** : Carpal Tunnel Syndrome (CTS), Dentistry, Musculoskeletal Disorders (MSD)