Pain Severity, Stress, Disability and Quality of Life in Office Workers with Low Back and Neck Pain: Which Group is More at Risk?

Yasemin Özel Aslıyüce1, PT, MSc; Gizem Soylu1, PT; Prof; Özlem Ülger1 , PT, PhD, Prof.

1. Hacettepe University, Faculty of Physical Therapy and Rehabilitation, Ankara, Turkey
Email:fzt.yasemin.ozel@gmail.com

Summary

This study examines the impact of chronic low back pain (LBP) and chronic neck pain (NP) on pain severity, perceived stress, quality of life, and sick leave among office workers. Thirty participants aged 25–55 were divided into LBP and NP groups. Results showed that individuals with NP had significantly more sick leave ($p=0.002$) and lower quality of life ($p=0.001$) than those with LBP, while pain severity and stress levels were similar ($p>0.05$). These findings suggest that NP may have a greater impact on work absenteeism and well-being compared to LBP. The differences in sick leave may be influenced by coping strategies, work demands, or ergonomic factors. Understanding these distinctions is crucial for designing targeted interventions such as ergonomic adjustments, stress management programs, and preventative strategies in office environments. Further studies with larger and more diverse populations are recommended to explore these factors in greater depth.

Introduction

Office workers are prone to musculoskeletal disorders, particularly chronic LBP and chronic NP, due to prolonged sitting and non-ergonomic work environments. These conditions can negatively impact work performance, increase stress levels, and reduce quality of life. While LBP is often considered the leading cause of disability, NP may also contribute to significant work absenteeism and reduced well-being. Understanding the differences between these two conditions is crucial for developing targeted interventions that can mitigate their impact. This study aims to compare pain severity, perceived stress, quality of life, and sick leave rates between office workers with LBP and NP, providing valuable insights into workplace health risks. Identifying key risk factors and differences between these groups will help inform the development of ergonomic improvements, stress management programs, and preventative strategies to support office workers' health and productivity.

Methods

The study included 30 desk-based office workers aged between 25 and 55 years. Participants were divided into chronic low back pain ($n = 15$) and chronic neck pain ($n = 15$) groups. In addition to demographic data, the number of days off and weekly working hours were recorded. Pain severity was assessed with the Numeric Pain Scale, perceived stress level with the Perceived Stress Scale and quality of life with the Nottingham Health Profile.

Results and Discussion

The mean age of the participants was 43.90±10.47 years. As a result of the comparison between the two groups, the number of days off was significantly higher in individuals with NP ($p=0.002$). Nottingham Health Profile score was lower in individuals with neck pain ($p=0.001$). Age, gender distribution, pain severity and Perceived Stress Scale scores were similar between the groups ($p>0.05$).

According to our results, individuals with neck pain exhibit a higher number of sick leave days compared to those with low back pain, while their quality of life appears to be lower. Typically, LBP is known to cause greater levels of disability and has a more pronounced impact on quality of life (1). However, the findings among office workers in this study are intriguing and warrant further attention. The higher number of sick leave days in the neck pain group could reflect different coping strategies, work demands, or ergonomic factors specific to their roles. This outcome highlights the need to reassess risk factors and protective strategies for individuals who spend prolonged hours working at desks. Long-term ergonomic interventions, stress management programs, and targeted preventative measures may play a critical role in mitigating these issues. To gain a deeper understanding and validate these findings, future studies with larger and more diverse sample sizes are essential. Such research could provide further insight into the unique challenges faced by office workers and inform tailored interventions to improve their health and well-being.

Conclusions

This study highlights that office workers with chronic NP experience more sick leave and lower quality of life compared to those with chronic LBP, despite similar pain severity and stress levels. These findings emphasize the need for targeted ergonomic and preventive interventions to improve workplace health and productivity.

References

1. Hurwitz EL, Randhawa K, Yu H, Côté P, Haldeman S. The Global Spine Care Initiative: a summary of the global burden of low back and neck pain studies. European Spine Journal. 2018;27:796-801.