

To Study the Correlation between the Neck Pain and Quality of Life among Desktop Workers in the Banking Sector: A Correlational Study

Akshata Vijay Mhatre¹, Dr. Monali Mahendra Kashyap²

¹Undergraduate Student, YMT College of Physiotherapy, Kharghar, Navi Mumbai

²Guide, YMT College of Physiotherapy, Kharghar, Navi Mumbai

Email: mhatreakshata99@gmail.com

ABSTRACT

Background: Rapid technological advancement and increased reliance on computers have significantly altered the modern workplace, especially in the banking sector. Prolonged desktop use and sedentary habits contribute to a rise in neck pain, a common musculoskeletal disorder that may adversely affect the quality of life (QoL).

Aim: To assess the correlation between neck pain and quality of life among desktop workers in the banking sector.

Methods: A correlational study was conducted among 67 banking sector employees in Navi Mumbai. Data were collected using the Neck Disability Index (NDI) and SF-12 questionnaires. Statistical analysis was performed using SPSS v31.0, with Pearson's correlation test applied.

Results: A strong negative correlation was found between NDI and SF-12 ($r = -0.655$, $p < 0.001$). Mean NDI was 13.46 ± 7.15 and mean SF-12 was 87.38 ± 14.08 .

Conclusion: Neck disability is significantly associated with poorer quality of life. Ergonomic interventions and physiotherapy are essential to improve QoL in desktop workers.

Keywords: Neck Pain, Quality of Life, NDI, SF-12, Banking Sector, Desktop Workers, Ergonomics

I. INTRODUCTION

Technological advancements and the increasing use of computers have reshaped workplaces, particularly in the banking sector. While computers enhance productivity, prolonged use can lead to musculoskeletal problems, especially neck pain. Neck pain affects up to 50% of adults annually and is a leading contributor to reduced quality of life and work efficiency. Banking professionals are at high risk due to long sitting hours and poor ergonomic practices. This study aims to investigate the correlation between neck pain and quality of life among desktop workers in banking.

II. LITERATURE REVIEW

Studies have consistently shown a high prevalence of neck pain among office workers. Demissie et al. (2024) reported that musculoskeletal disorders are highly prevalent among computer users. Hashem et al. (2024) highlighted that neck and shoulder pain significantly reduce quality of life in adults. Jones et al. (2024) demonstrated that exercise interventions improve neck pain and disability in office workers. Nasir et al. (2022) found a high prevalence of neck pain among software engineers, particularly females. These findings emphasize the occupational burden of neck pain and its negative impact on quality of life.

III. METHODOLOGY

Design: Correlational study

Setting: Navi Mumbai

Sample: 67 banking sector employees (55% male, 45% female)

Inclusion: ≥ 6 hours desktop work daily, ≥ 1 year experience, with neck pain

Exclusion: Serious injury, cervical myelopathy, radiculopathy, neurological disorders

Outcome Measures: Neck Disability Index (NDI), SF-12 Scale

Analysis: SPSS v31, Shapiro-Wilk test for normality, Pearson's correlation applied.

IV. RESULTS

Out of 67 participants, 37 (55%) were male and 30 (45%) female. The mean NDI score was 13.46 ± 7.15 , while the mean SF-12 score was 87.38 ± 14.08 . Shapiro-Wilk test confirmed normal distribution. Pearson's correlation revealed a strong negative correlation between NDI and SF-12 ($r = -0.655$, $p < 0.001$), indicating that higher neck disability is associated with poorer quality of life.

V. DISCUSSION

The results confirm a strong negative correlation between neck pain and quality of life. These findings align with previous studies (Hashem, 2024; Hey, 2021) showing that musculoskeletal pain impacts both physical and mental health. Sedentary work, poor ergonomics, and static postures are major risk factors. Preventive interventions, including ergonomic modifications and physiotherapy, are crucial to reducing disability and improving QoL.

VI. CONCLUSION

There is a significant negative correlation between neck disability and quality of life among banking sector employees engaged in prolonged desktop work. Early physiotherapy, ergonomic corrections, and lifestyle modifications are recommended.

VII. LIMITATIONS

1. Limited to a single region (Navi Mumbai).
2. Lifestyle factors (diet, stress, exercise) not controlled.
3. Self-reported measures (NDI, SF-12) may introduce bias.

VIII. FUTURE SCOPE

Future studies should include larger multi-regional samples, incorporate objective clinical assessments, and test ergonomic and exercise interventions to establish causal links between neck pain and quality of life.

ACKNOWLEDGEMENT

I express my heartfelt gratitude to Dr. Monali Mahendra Kashyap, my guide, for her invaluable guidance, continuous encouragement, and constructive feedback throughout this study. Her expertise and insights were instrumental in shaping the research. I sincerely thank all the staff and management of the participating banks who allowed me access to employees and cooperated during data collection. I am grateful to all the participants who willingly volunteered their time and shared honest responses for this research. I also acknowledge the support extended by YMT College of Physiotherapy, Kharghar, Navi Mumbai, for providing necessary facilities and an environment conducive to research. Finally, I thank my family and friends for their moral support and understanding during the course of this study.

REFERENCES

- Demissie B, Bayih ET, Demmelash AA. (2024). A systematic review of work-related musculoskeletal disorders and risk factors among computer users. *Heliyon*, 10(3): e25075.
- Hashem M, et al. (2024). Impact of Neck and Shoulder Pain on Health-Related Quality of Life in Adults in Saudi Arabia. *Cureus*, 16(4): e59252.
- Jones LB, et al. (2024). The influence of exercise on pain, disability and quality of life in office workers with chronic neck pain: A systematic review and meta-analysis. *Applied Ergonomics*, 117: 104216.
- Nasir A, et al. (2022). Prevalence of Neck Pain and its Effects on Quality of Life of Software Engineers in Lahore. *Pakistan J Med Health Sci*, 16(5):171.
- Hey HWD, et al. (2021). Epidemiology of Neck Pain and Its Impact on Quality-of-Life: A Population-Based Cross Sectional Study in Singapore. *Spine*, 46(22):1572-1580.