

Evaluating The Ergonomic Postural Variability and Work-Related Musculoskeletal Disorders Among Office Desktop Workers in Corporate Offices

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INTRODUCTION

WMSDs impact almost one-third of the global population and are among the leading causes of long-term musculoskeletal pain, decreased productivity at work, and poor quality of life among office desktop workers in corporate offices. (Geto et al., 2025; Mishra et al., 2024)

Therefore, this study focuses on evaluating the ergonomic postural variability and work-related musculoskeletal disorder among the office desktop workers in corporate offices and the impact on productivity using standardised assessment tools which are Rapid Entire Body Assessment (REBA) and Nordic Musculoskeletal Questionnaire (Ibrahim & Gaafar, 2024).

AIM OF STUDY

To evaluate work-related musculoskeletal disorders and ergonomic posture among desktop workers in corporate office and impact on the productivity.

METHODS

RESEARCH DESIGN

Quantitative Cross-Sectional Study

RESEARCH SETTING

Corporate Offices in Chegalpattu

SAMPLE TECHNIQUES & SAMPLE SIZE

A Non-Randomised Sampling Techniques
(N-118)

SELECTION CRITERIA

Inclusion: Corporate Office Desktop Worker within age 25-57 (both genders) with at least 1 year work experience

Exclusion: Pregnant Women and Non-English Speaking

DATA COLLECTION PROCEDURE

Ethical clearance obtained & Permission obtained from Corporate Office Authorities

Participants were recruited based on the selection criteria

Conducted ergonomic and Musculoskeletal assessments using REBA & NMQ tools.

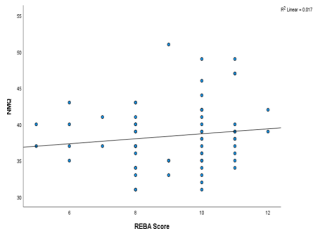
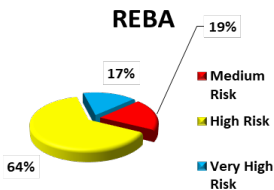
Data processed using SPSS Version 24

ASSESSMENT TOOLS

Rapid Entire Body Assessment (REBA) & Nordic Musculoskeletal Questionnaire (NMQ)

RESULTS

NMQ: **36.33%** (7-day WMSDs), **41.0%** (12-month WMSDs) and **33.8%** (12-month productivity deficit)



No significant difference between the REBA and NMQ scores of the participants.

Discussion

Gender differences explain the variation in the REBA Risk Factor observed in this study, a view that aligned with Ekezie et al. (2020 and Ibrahim & Gaafar (2024).

Furthermore, Ibrahim & Gaafar (2024) reported minimal significance in the NMQ and REBA scores, as confirmed in this study. This might be due to the desktop office worker's tolerance.

Similarly, Dal et al. (2025) observed no significant association between ergonomic postural variability and WMSDs. This is consistent with the findings of this study.

Finally, Cabegi de Barros et al. (2022) reported a little difference in significance between REBA and NMQ scores, which is observed in this study among desktop office workers in corporate offices.

Strength

1. Standardised tools used
2. Active working age

Limitation

1. Only corporate office desktop workers
2. Small sample size (118)

Implications of the Study

Identify and address potential ergonomic hazards to create safer and comfortable environment for desktop workers in corporate offices

Conclusion

This study showed that, the prevalence of risk factors WMSDs in relation to ergonomic postural variability among desktop workers in corporate offices is on the rise in Chegalpattu and this might impact productivity.

Thank You

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