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## Introduction

Social distancing has been one of the initiatives implemented worldwide to slow down the transmission of the SARS-Cov-2. Therefore, office workers have changed their usual work environment once they started working from home. The physical and biopsychosocial impact of this change were not investigated among Brazilian office workers.

## Objective

To characterize the changes in musculoskeletal symptoms and biopsychosocial indicators among Brazilian office workers while working from home during the COVID-19 pandemic, compared to the situation before the pandemic.

## Methods

Eleven office workers (5 females, 6 males; age 39.3 [SD 9.1] years) from a public university in Brazil were included (CAAE: 94640218.5.0000.5504). They had to be in the workforce for at least five years.

Musculoskeletal symptoms in the past 7 days were evaluated by the Nordic Musculoskeletal Questionnaire (NMQ), work engagement by the Utrecht Work Engagement Scale (UWES), work stress related to demand and control over work by the Job Content Questionnaire (JCQ) and chronic fatigue by the Need for Recovery (NFR).

The changes in physical and biopsychosocial indicators from pre to during COVID-19 pandemic were described according to each questionnaire. Descriptive statistics was used to present the results.

- NMQ: an increase in body symptoms (>3 body regions);
- UWES: change (positive or negative) in the classification of work engagement (“very low”, “low”, “average”, “high” and “very high”);
- JCQ: change (positive or negative) in the classification of work stress (“passive”, “low strain”, “high strain” and “active”);
- NFR: increase (negative) or decrease (positive) in the score from pre to during COVID-19.

## Results

According to the NMQ, 5 workers (45.45%) increased the number of body regions (>3 body regions) with musculoskeletal symptoms from pre to during COVID-19 pandemic. Upper back, low back, and neck were the most common regions with symptoms.

Work engagement decreased for 3 workers (27.27%) and increased for 1 worker (9.09%). The JCQ also showed worse score for 3 workers (27.27%), but 2 workers (18.18%) improved the score. The NFR showed a slight decrease in the score for 6 workers. For these workers, the average score decreased from 40.4% to 30.8%.

## Conclusion

Working from home during the COVID-19 pandemic has mostly a negative impact on the physical component, as the NMQ showed an increase in self-reported musculoskeletal symptoms, particularly on the back and neck.

On the other hand, a positive impact was a slightly lower NFR score observed during the social restriction, for most workers. No important changes were observed for work engagement or stress.

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## Keywords

COVID-19; Ergonomics; Biopsychosocial

