

The remote work revolution: Which generation is winning the ergonomic battle?

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Introduction

The **rapid expansion of remote work** following COVID-19 has increased exposure to non-ergonomic home workstations. While remote work offers benefits in flexibility and well-being, it has also **introduced ergonomic challenges, with persistent generational disparities in workstation safety** and musculoskeletal health. Understanding these differences is essential for targeted ergonomic research and intervention

'The new normal': work from home is here to stay, US data shows



Aims

- Identify and analyze **ergonomic risk factors among remote office workers from different generations**
- Develop **targeted ergonomic guidelines, prevention programs, and training strategies tailored to generational differences**, aiming to enhance employee health, wellbeing, and work efficiency in remote settings

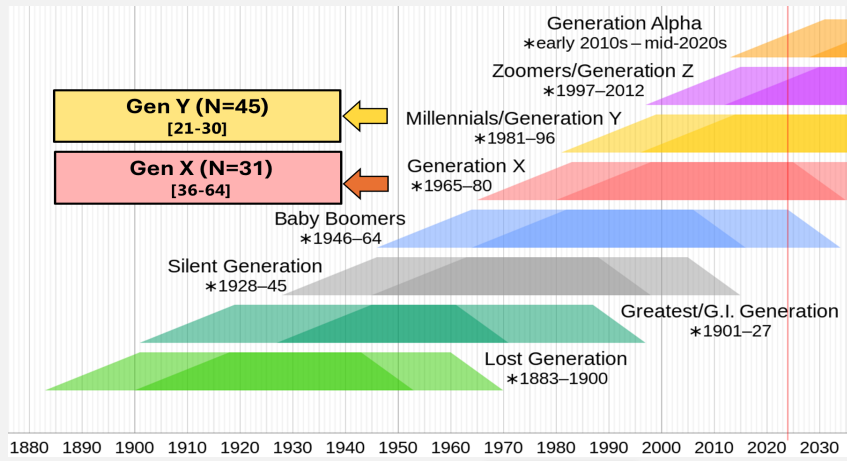


No financial disclosures

Methods and Results

Methods

A cross-sectional study was conducted with **76 remote office workers (ages 23-64)** categorized into **Gen X (n=31)** and **Gen Y (n=45)**

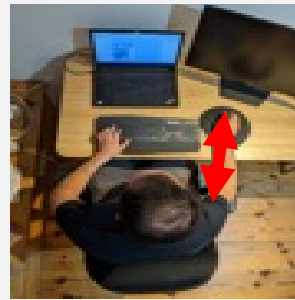
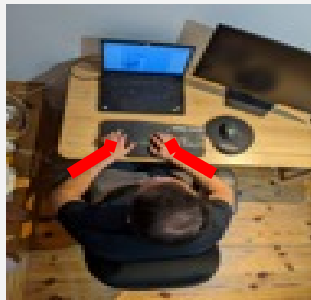
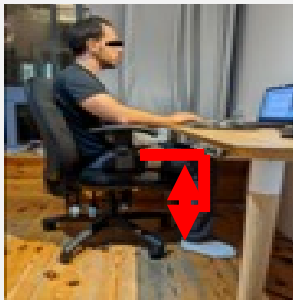


Data collection included **self reported questionnaires** and **expert workstation evaluations**

Ergonomic risks were assessed with the **Rapid Office Strain Assessment (ROSA)** workstation safety ratings and musculoskeletal pain levels via the **Standardized Nordic Questionnaire (SNQ)**

Statistical analysis included Mann-Whitney U tests, logistic regression and chi-square analysis

Example of images for evaluating the home workstation

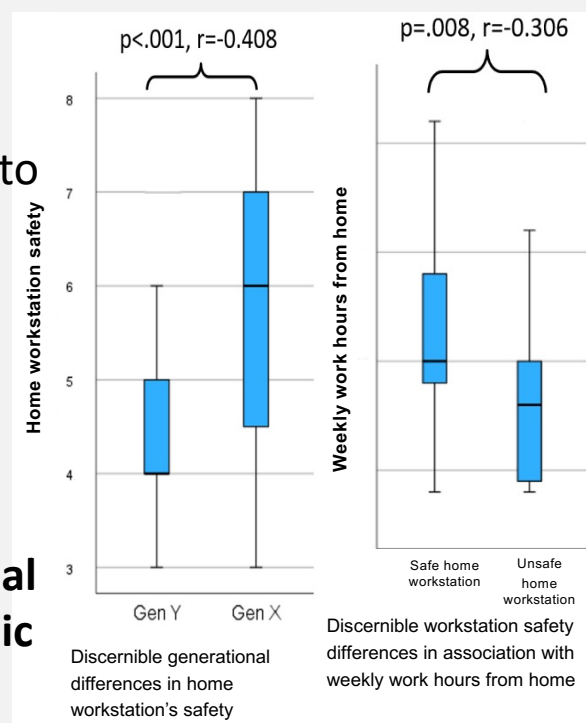


Results

Gen Y workers had significantly **safer workstations** ($p < .001$) and were more likely to invest in ergonomic equipment.

Gen X workers, despite receiving more employer-provided equipment, faced **higher ergonomic risks**. No significant differences were observed in musculoskeletal pain.

Regression analysis identified **generational group, remote work hours, and ergonomic equipment purchases** as **predictors of workstation safety** ($p < 0.05$). These findings highlight the need for tailored ergonomic education and workplace policies



Discussion and Conclusions

Discussion

Analysis of the data shows that there is a significant difference between the two generational groups, X and Y

Generation Y worked more hours from home than Generation X, a factor that may influence the degree of effort Generation Y puts into setting up a safer home computer workstation, both in terms of purchased equipment and adherence to ergonomic guidelines

It is possible that Generation Y works in safer workstations due to their exposure and familiarity with ergonomic guidelines and/or their ability to adapt to remote work. Generation X may have difficulty keeping up with new technologies and ergonomic accessories that facilitate the arrangement of workstations

The purchase of ergonomic equipment may contribute to improved workstation safety across all age groups

These findings suggest the potential benefits of targeted ergonomic interventions, particularly for Generation X, in enhancing safety and alleviating discomfort associated with prolonged remote work



Conclusions

With the acceleration of remote work, it is important to create safe home workstations to improve efficiency and reduce musculoskeletal pain

In general, **Generation Y works in safer workstations**, especially **men from Generation Y** and **independently purchase equipment** to a greater extent

The findings of the study highlight the need for **targeted ergonomic interventions**, particularly **for Generation X**, to improve safety and prevent musculoskeletal pain associated with prolonged remote work