

Stress Levels Among Active Vs. Sedentary Workplaces

Andrew O'Brien, Julie Pitney, Victoria Cheng

Department of Family & Preventive Medicine, University of California, San Diego (UCSD)

BACKGROUND

- **♦** The prevalence of sedentary occupations in the United States has increased significantly from 1960 2008.¹
- **♦** High amounts of sedentary behavior are associated with higher levels of stress in the workplace.²
- The amount of stress experienced by Americans is on the rise and is considered a public health crisis.³
- **♦** People who are physically active tend to live longer and are at less risk for serious health problems like heart disease, type 2 diabetes, and obesity.⁴

OBJECTIVE

To analyze the various levels of workplace activity across a range of occupations to determine if sedentary activity in the workplace is correlated with high levels of stress among adults in the United States.





METHODOLOGY

- **This is a cross-sectional study conducted using Google Forms to survey working individuals across the United States.**
- **♦** The study population consisted of a total of 63 participants aged 18-65.
- **The majority of our respondents were technology workers.**
- **♦** Participants were recruited over a two week period from April 27 May 11, 2020.
- **♦** Sedentary behavior was defined as any waking behavior in a sitting or lying position where little energy is exerted.
- ♦ Stress was defined as how a person's brain and body respond to demanding situations and challenges. Stress was individually calculated using the Perceived Stress Scale (PSS).
- **♦** Activity break was defined as an opportunity to be physically active for a short stretch break, a 5–10 minute movement break, or 15-30 minute walking break.
- **♦** Physical activity was defined as exercise that is planned, structured and repetitive for the purpose of conditioning any part of the body.
- **The data was analyzed using multiple two-tailed t-tests.**

RESULTS

Sample Characteristics	Total Sample
	% (N=63)
Health Status	
Excellent	7.9 (5)
Good	44 (28)
Average	39 (25)
Poor	7.9 (5)
Very Poor	0 (0)
Gender	-
Female	17.5 (11)
Male	82.5 (52)
Weekly Hours Worked	
10-30 hours	7.9 (5)
31-50 hours	73 (46)
51-70 hours	15.9 (10)
>70 hours	3.2 (2)

- **♦** Workers who took <2 activity breaks (n=20) a day were more likely to report lower stress scores (p=.035)
- **♦** Workers who reported < 70% time sitting at work (n=30) were slightly more likely to report lower stress scores (p=.597).
- **♦** Individuals who reported >2 workouts (n=30) a week also reported significantly lower stress scores (p=.008).

CONCLUSIONS

- **♦** Activity breaks are important to include in a job. Future studies could include measuring frequency and duration of activity breaks to determine the most effective type of activity break.
- **Engaging in physical activity is strongly correlated with reducing stress levels.**
- The relationship between work time spent sitting and stress scores was not significant, though other previous studies show otherwise.⁵

REFERENCES

1. Ng, S. W., & Popkin, B. M. (2012). Time use and physical activity: a shift away from movement across the globe. Obesity reviews, 13(8), 659-680. 2. Lee, E., & Kim, Y. (2019). Effects of Sedentary Behaviors on Stress and Suicidal Ideation: Occupation-Based Differences. The Open Nursing Journal, 13(1). 3. American Psychological Association. (2012, January 11). Stress in America: Our Health at Risk [Press Release]. 4. Centers for Disease Control and Prevention. (2020, April 10). About Physical Activity. 5. Scholz, A., Wendsche, J., Ghadiri, A., Singh, U., Peters, T., & Schneider, S. (2019). Methods in Experimental Work Break Research: A Scoping Review. International Journal of Environmental Research and Public Health, 16(20). https://doi.org/10.3390/ijerph16203844





