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STAND UP TO WORK: IMPROVING HEALTH THROUGH THE WORKPLACE ENVIRONMENT

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The American workforce has become sedentary; a behavior associated with poor health outcomes; chronic diseases, premature mortality, fatigue, and obesity. Changing the built environment is a strategy that can provide opportunities to promote physical, mental health and overall wellbeing. Ergonomic changes in an office environment can address excessive sitting; factors influencing mental health include indoor environmental conditions, the social climate of the workplace, and job stressors. Studies have shown that the improvement of these factors can promote healthy behaviors, mood states, and job satisfaction. Implementing adjustable workstations (AWS) allow workers to sit or stand, with studies demonstrating notable reductions in sitting times, improvements in comfort, energy, happiness, and focus. This study documents workplace behavior, physical and mental wellbeing of workers, after the introduction of an AWS, compared to those with a traditional desk (TD) in an office environment.

This presentation describes a RCT of adjustable workstations (AWS). Subjects with AWS and traditional desks (TD) were surveyed electronically with two validated health and work questionnaires, before AWS installation, three and six months later. They reported current activity via polling for one week, at each time point. Nonparametric Wilcoxon tests were performed. Spearman's rank correlation was used to analyze mental health variables.

Participants included 30 with AWS and 37 with TD, median age 30-39 years and 60% male. Participants who received AWS reported (through polling) significantly less sitting three months after (17% reduction in sitting; $p=0.02$) and six months after (15% reduction; $p=0.006$) AWS installation. Participants with AWS reported a reduction in upper back pain at both time points ($p=0.008$ and $p=0.01$, respectively), compared with participants with TD. After six months, 96% of participants who received AWS reported the new workstations were convenient to use; 63% reported increased productivity; and 61% indicated that the AWS positively impacted their health outside of the workplace. Among employees <30 years old, less sitting time was associated with improved coworker communication ($r=.80$; $p=.104$) and efficiency ($r=0.740$; $p=.152$). Participants with AWS also reported better concentration and, overall, would recommend AWS for their worksite.

This study demonstrates advantages of an AWS versus a traditional desk. Due to the fact that physical activity and work environment have been shown to improve mood states and physiological health, an exploration of how AWS usage can affect sustained workplace environment satisfaction is a topic for further exploration.

Biography

Elizabeth Garland graduated from Albany Medical College of Union University as Medical Doctor, and a Masters Degree in Public Health and Nutrition from Columbia University. She trained at Icahn School of Medicine in New York City in both Pediatrics and General Preventive Medicine. She is currently an Associate Professor in the Departments of Preventive Medicine and Pediatrics. She is the Director of the Division of General Preventive Medicine and Community Health and also the Director of the General Preventive Medicine Residency. She is the Health Promotion Disease Prevention Track Leader in the Mount Sinai Graduate Program in Public Health.

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