Office workers spend more time completing sedentary behavior now than ever before. Sedentary behavior has been associated with diseases like diabetes mellitus, cancer, obesity, cardiovascular problems, and musculoskeletal disorders (MSDs). Additionally, office workers are prone to risk factors such as static posture, contact stress, repetitive motions, and poor posture due to the tasks and activities associated with their job. Reductions in sedentary behavior and ergonomic education and interventions have been shown to reduce adverse health outcomes and risk factors associated with office work. 2,9,10 Occupational therapy can play a vital role in improving the health and well-being of this population due to their guiding theories and knowledge in biomechanics, anatomy, physiology, and ability to analyze tasks. Additionally, the scope and aim of the profession of occupational therapy aligns with this specific practice area. 11

THEORETICAL FOUNDATION

Person-Environment-Occupation Model (PEO)

The PEO model suggests that occupational performance occurs through the dynamic relationship between the person, environment, and occupation. The degree of overlap between the person, environment, and occupation increases, occupational performance increases as a result. This dynamic relationship changes throughout the lifespan. Within this study, each worker had unique physical and cognitive abilities, as well as different attitudes, preferences, and roles. Additionally, the office-environment consisted of the physical, social, cultural, and socio-economic factors. In the occupation domain, each participant had different duties, routines, and abilities required to perform their occupation. Occupational therapy intervention is designed to improve occupational performance through client-centered goals and ergonomic changes to the environment.

Biomechanical and Rehabilitative Frames of Reference

The basic concepts of the Biomechanical Frame include range of motion, kinematics, torque, strength, and endurance. The workstation assessment utilized anthropometrics and observation to identify forces that may cause dysfunction. The aim of the Rehabilitative FOR is to utilize compensatory techniques to address environmental factors that result in dysfunction. Following the ergonomic assessment, the environment was modified to promote occupational performance through these compensatory techniques. For these FORs were used in conjunction for the creation of client-centered goals and implementation of ergonomic recommendations and modifications.

STUDY PURPOSE

Due to the poor health outcomes and risk factors associated with office work, the purpose of this study was to examine the impact of occupational therapy intervention on the perceived health and well-being among office workers in a selected occupational performance. Occupational therapy intervention included client-centered goals along with ergonomic recommendations and modifications.

RESULTS

Analysis of the demographic information indicated that there were eight males and nine females who completed the six-week study. Participants had an average age of 44.6 years and self-reported sitting at their workstation for approximately 6.2 hours each workday.

- Survey results indicate a greater number of participants were satisfied with their activity during work and reported more opportunities to be active. The majority of participants reported they believed their work was good for their health.
- Goals were categorized as either increasing physical activity (16), reducing work-related functioning (11), or increasing personal health (4). A majority of participants indicated they had met their goals(s), and planned to continue with their goals(s) following the study.
- SBQ results show a decrease in weekday sedentary hours from pretest (M=10.47, SD=2.79) hours to posttest (M=9.16, SD=3.32); (t(16)=1.29, p = .217). SBQ results show increase in weekend day sedentary hours from pretest (M=6.66, SD = 2.42) to posttest (M=4.96, SD = 3.37); (t(16)=.76, p = .457).

Additionally, positive trends were found in numeric pain rating scale scores at posttest and had taken 39.070 (SD = 8.010) steps and burned 1,743 (SD = 695) calories at posttest.

Due to inconsistencies in the carryover of actigraphy protocol, multiple participants had an increase in weekend day sedentary habits. This may have contributed to a greater number of sedentary habits occurring at pretest.

Limitations

Due to the small sample size, statistical power was decreased. A small sample size also allows large outliers to skew mean assessment scores. Additionally, multiple assessments were not sensitive enough to find change. Specifically, multiple participants were at the ceiling of multiple scaled-scores of the RAND SF-36 and on the NPRS, leaving no room to improve. Finally, weather conditions throughout the course of the workday may have contributed to a greater number of sedentary habits occurring at pretest.

Implications

This study demonstrates that occupational therapists can assist office workers in creating meaningful change in their lives through the promotion of health and well-being. The use of occupational therapists to implement ergonomics and client-centered goals is a cost effective way for companies to improve the health and well-being of their employees. Due to the limited amount of occupational therapy specific research in this practice area, future research is necessary to demonstrate occupational therapy’s role in this area of practice.

CONCLUSION

Occupational therapy intervention, through client-centered goals and ergonomic recommendations and modifications, can have a positive impact on the perceived health and well-being of office workers and their overall occupational performance. Statistically significant increases were found in subjective sleep quality, energy/fatigue, emotional well-being, and calories burned. Furthermore, positive trends were found in nearly all other outcome measures. These findings shed new light into the use of a multi-component intervention strategy aimed at the prevention of poor health outcomes associated with sedentary behavior in office workers. Future research is necessary to build on these findings to promote the health and well-being of this at-risk population.

REFERENCES


