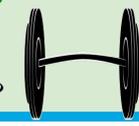


UBC-Affiliated Employees Face Barriers to Physical Activity

Mabel Zhou, Victor Luk, Maggie Mei, Joe Theobald, Shairah Bumagat



INTRODUCTION



There is increasing research suggesting that the effects of physical inactivity may predict detrimental health concerns such as cardiovascular diseases, obesity, type 2 diabetes and some types of cancers (Hu, Tuomilehto, Silventoinen, Barengo, Peltonen, & Jousilahti, 2005). According to Statistics Canada (2015), only 18% of adults age 40-59 achieve the recommended 150 minutes of physical activity (PA) per week. This suggests that very few middle aged adults are meeting the PA guidelines, thus have an increased risk of developing adverse health conditions. Moreover, there has been supporting evidence that even when adults meet the physical activity guidelines, sitting for long periods can compromise metabolic health (Owen et al., 2010). This could be a result of adults' working hours and returning home feeling fatigued. There is limited research with regards to the associations of non-desk jobs and PA of female employees age 40-55 at the University of British Columbia. Thus, interventions that address the barriers to PA and reduce sedentary behaviour at the workplace could benefit employees' health by promoting more physical activity during and after work.

METHODS



Participants of this study were female employees aged 40 - 55 working in UBC-affiliated food services and were surveyed by the research team. They were recruited from Mercante Pizza, Tim Hortons at David

Lam Building, Orchard Commons, Corner Cafe at Woodward, and the Earth Science Building Cafe. The locations were visited during non-peak hours (3 to 5 pm) on weekdays. Employees who were on break or free were invited to complete the survey.

SPSS statistics software was then used to analyze the data collected to investigate the correlation between different variables and physical activity participation.

RESULTS



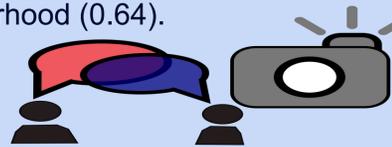
92% of participants expressed that health was very important to them, but only 31% currently engage in any type of PA outside of work. 85% reported part-time employment status, but the average weekly work hours was 29, not very far from what is considered as a full-time employment in many organizations. When asked to identify at least one health promoting aspect of the job, the most commonly reported features were healthy snack bars provided and getting to move around during shifts. In terms of coworker relationships, all of the survey participants reported positive working environments, with an average score of 8.6 on a scale of 1 to 10. However, this high score did not subsequently lead to a will to be active together, seen as 7 out of 13 participants not being comfortable to exercise in a group setting with their coworkers. Half of the employees surveyed work at specific locations, while the other half work

at different locations depending on assignment.

When asked whether they would be comfortable with switching work locations during a work day, 62% of the employees were neutral or comfortable with the idea. 8 out of 13 participants were aware of the active programs on campus, but 7 out of these 8 employees rarely or never participate in any of the programs. The biggest reason for not participating was reported to be lack of time. Relating to time being an obstacle, 9 out 13 participants attribute this lack of time to long working hours on campus despite majority being part-time workers.

Relationship between importance of health and participation of PA outside of work has a large positive relationship (0.42). Participation in PA has a moderate-large positive relationship (0.38) with one's physical health for surveyed participants. There is a large positive relationship participation in PA and awareness of UBC recreational programs (0.52) and recreational resources around employees' neighbourhood (0.64).

DISCUSSION



These results provide a snapshot into the relationship that women working at the UBC food services have with PA in their day to day lives. They suggest that the participants are interested in being physically active but the vast majority are not able to access physical activity due to lack of time. More importantly these findings suggest that

a lack of knowledge around PA and how to access it plays a key factor in their lack of it. This study has provided a huge scope for future research and intervention with respect to this target group as they seem to represent an 'untapped market', having seemingly been left behind by other health promotion initiatives. Future research should focus on gaining a qualitative understanding into the barriers of this target group that stop them from being physically active.

RECOMMENDATIONS



•**Random dancing:** 5-10 minutes exercise routine that is done before and after staff's shift when music is played in the restaurant. It is the cue for the employees to do their own stretching. This will address the limitation of time for workers, since it's implemented during working hours

•**Exercise programs:** 30 minutes low-cost or free recreational classes that will accommodate employee's vacant time.



A calendar full of potential activities will be posted in staff room attached with sign-up sheets.

•**Stamp/Access Cards:** gives employees the privilege of 10 visits in UBC's gym and swimming pool facilities. This can solve financial issues and incentivise active participation.



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References

- Gates, D., Brehm, B., Hutton, S., Singler, M., Poepelman, A. (2006). Changing the work environment to promote wellness: A focus group study. *Workplace Health & Safety*, 54(12), 515-520.
- Gu, J., Charles, L., Ma, C., Andrew, M., Fekedulegn, D., Hartley, T., Violanti, J., & Burchfiel, C. (2016). Prevalence and trends of leisure-time physical activity by occupation and industry in U.S. workers: The National Health Interview Survey 2004-2014. *Annals of Epidemiology*, 26(10), 685-692.
- Hu, G., Tuomilehto, J., Silventoinen, K., Barengo, N. C., Peltonen, M., & Jousilahti, P. (2005). The effects of physical activity and body mass index on cardiovascular, cancer and all-cause mortality among 47 212 middle-aged Finnish men and women. *International Journal of Obesity*, 28(9), 894-902.
- Hunter, R. F., Davis, M. D., Tully, M. A., Kee, F. (2012). Physical activity buddies: a network analysis of social aspects of physical activity in adults. *The Lancet*, 380(Supplement 3), S51.
- Mansoubi, M., Pearson, N., Clemes, S., Biddle, S., Bodicoat, D., Tolfey, K., Edwardson, C., Yates, T. (2015). Energy expenditure during common sitting and standing tasks: examining the 1.5 MET definition of sedentary behaviour. *BMC Public Health*, 15(16), 1-8.
- Owen N., Healy G., Matthews C., & Dunstan D. (2010). Too much sitting: the population health science of sedentary behavior. *Exercise Sport Science Reviews*, 38(3), 105-113.
- Statistics Canada. (2015). Directly measured physical activity of adults, 2012 and 2013. Retrieved from <http://www.statcan.gc.ca/pub/82-625-x/2015001/article/14135-eng.htm>
- Tigbe, W., Lean, M., & Granat, M. (2011). A physically active occupation does not result in compensatory inactivity during out-of-work hours. *Preventative Medicine*, 53(1), 48-52.
- UBC. (2018). UBC food services. Retrieved from <http://www.food.ubc.ca>
- Web, Fox59. (2018, March 21). Flash Mob at Circle Centre Mall Raises Awareness about World Down Syndrome Day. *Fox 59*. Retrieved from <http://fox59.com/2018/03/21/flash-mob-at-circle-centre-mall-raises-awareness-about-world-down-syndrome-day>

