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Determinants of Walking among Middle-Aged and Older Overweight and Obese Adults: Demographic, Health, and Socio-Environmental Factors

Authors : Samuel N. Forjuoh, Marcia G. Ory, Jaewoong Won, Samuel D. Towne, Suojin Wang, Chanam Lee

Abstract : The public health burden of obesity is well established as is the influence of physical activity (PA) on the health and wellness of individuals who are obese. This study examined the influence of selected demographic, health, and socioenvironmental factors on the walking behaviors of middle-aged and older overweight and obese adults. Online and paper surveys were administered to community-dwelling overweight and obese adults aged ≥ 50 years residing in four cities in central Texas and seen by a family physician in the primary care clinic from October 2013 to June 2014. Descriptive statistics were used to characterize participants' anthropometric and demographic data as well as their health conditions and walking, socioenvironmental, and more broadly defined PA behaviors. Then Pearson chi-square tests were used to assess differences between participants who reported walking the recommended ≥ 150 minutes for any purpose in a typical week as a proxy to meeting the U.S. Centers for Disease Control and Prevention's PA guidelines and those who did not. Finally, logistic regression was used to predict walking the recommended ≥ 150 minutes for any purpose, controlling for covariates. The analysis was conducted in 2016. Of the total sample (n=253, survey response rate of 6.8%), the majority were non-Hispanic white (81.7%), married (74.5%), male (53.5%), and reported an annual household income of ≥ $50,000 (65.7%). Approximately, half were employed (49.6%), or had at least a college degree (51.8%). Slightly more than 1 in 5 (n=57, 22.5%) reported walking the recommended ≥150 minutes for any purpose in a typical week. The strongest predictors of walking the recommended ≥ 150 minutes for any purpose in a typical week in adjusted analysis were related to education and a high favorable perception of the neighborhood environment. Compared to those with a high school diploma or some college, participants with at least a college degree were five times as likely to walk the recommended ≥ 150 minutes for any purpose (OR=5.55, 95% CI=1.79-17.25). Walking the recommended ≥ 150 minutes for any purpose was significantly associated with participants who disagreed that there were many distracted drivers (e.g., on the cell phone while driving) in their neighborhood (OR=4.08, 95% CI=1.47-11.36) and those who agreed that there are sidewalks or protected walkways (e.g., walking trails) in their neighborhood (OR=3.55, 95% CI=1.10-11.49). Those employed were less likely to walk the recommended ≥ 150 minutes for any purpose compared to those unemployed (OR=0.31, 95% CI=0.11-0.85) as were those who reported some difficulty walking for a quarter of a mile (OR=0.19, 95% CI=0.05-0.77). Other socio-environmental factors such as having care-giver responsibilities for elders, someone to walk with, or a dog in the household as well as Walk Score™ were not significantly associated with walking the recommended ≥ 150 minutes for any purpose in a typical week. Neighborhood perception appears to be an important factor associated with the walking behaviors of middle-aged and older overweight and obese individuals. Enhancing the neighborhood environment (e.g., providing walking trails) may promote walking among these individuals.

Keywords : determinants of walking, obesity, older adults, physical activity
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