

早稲田大学審査学位論文

博士（スポーツ科学）

概要書

Environmental Approaches for Promoting Physical
Activity among Overweight Men

過体重・肥満男性の身体活動促進に向けた
環境的アプローチ

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ABSTRACT

Overweight and obesity are associated with an increased risk of morbidity from chronic diseases, as well as with higher health-care costs and lower quality of life. Not only in Western countries, an increasing prevalence of overweight has also been reported but in Japan. The prevalence of overweight adults in Japan has grown to 28.6% in men and 20.6% in women, and men aged 40–49 years had the highest percentage (35.9%). Therefore, with regard to the obesity epidemic, identifying effective, population-based strategies for preventing weight gain would be a public health priority in Japan.

Numerous longitudinal and cross-sectional studies have shown that engaging in physical activity is beneficial for the prevention of obesity and overweight. Despite such a benefit, overweight and obese individuals spent less time on physical activity and were less likely to meet the recommended level of physical activity than normal-weight individuals. Therefore, developing effective strategies to promote physical activity to overweight and obese subgroups is needed to prevent further increases in the obesity rate among populations.

Based on the behavioral epidemiology framework, the present study aims to find out the socio-demographic subgroups that are most in need of physical activity intervention, as well as other factors associated with physical activity among overweight and obese populations. To further enhance the understanding of this important research area, literature searches were conducted to review the correlates of physical activity among overweight and obese populations in previous studies.

Literature searches were conducted for English-and Japanese-language articles published between Jan 2000 and Dec 2010 using PubMed, Medline, Psycinfo and the “Japan Medical Abstract Society”. A total of nine articles were deemed to meet the inclusion criteria. The results of this review indicated that limited studies have aimed at examining physical activity correlates among overweight/obese populations, specifically in non-western countries. In addition, for developing effective physical activity interventions among overweight/obese populations in a long-term impact, to further examine environmental factors associated with specific physical activity behavior is still required in this area. Based on the findings of this review, the hypothesis of the present dissertation is that prevalence and correlates of physical activity might differ by BMI status. Therefore, the purpose of this dissertation was to

investigate the sociodemographic and perceived environmental factors associated with physical activity among overweight men by two studies.

The first study examined association of self-reported physical activity patterns and socio-demographic factors among normal-weight and overweight Japanese men. The results revealed that patterns and socio-demographic correlates of physical activity in overweight men are different from those in normal-weight men: (1) Overweight men are significantly less likely to engage in moderate-to-vigorous physical activity than normal-weight men, (2) household income is a different physical activity correlate according to BMI status. These findings may imply that encouraging overweight men to engage in walking could be considered as a target physical activity behavior, as well as it is necessary to develop specific strategies for physical activity intervention targeting on whole overweight Japanese men.

The second study further identified perceived environmental factors associated with physical activity among normal-weight and overweight Japanese men. The results showed that both common and different environmental correlates of physical activity were observed among normal-weight and overweight men. The findings of this study contribute evidence to the literature on BMI as a moderator between environmental factors and physical activity. Findings from the present study suggested that developing different environmental intervention approaches might be needed to promote PA effectively for overweight populations compared with normal-weight populations. In addition, the findings from this study might imply that environmental approach could be an effective strategy for promoting physical activity among overweight men

In conclusion, the present results expand the existing limited literature by reporting overweight Japanese men have different physical activity patterns and correlates of physical activity with normal-weight Japanese men. Based on these findings, this dissertation reveals the importance of developing specific physical activity strategy for overweight men and further suggests that leisure-time walking could be a target behavior, as well as developing partnerships for creating a safe environment for whole overweight men to achieve health-enhancing levels of physical activity. This dissertation concludes that enhancing awareness and knowledge of environment could be an important physical activity approach on overweight populations. These results of this dissertation may provide useful information for future research to design physical activity intervention on overweight Japanese men.