

【Original Article】

**Associations of Perception, Attitude, Action and Belief
to Power Saving with Physical Activity Level**

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Abstract

Purpose: The purpose of this study was to examine how the perception, attitude, action, and belief to power saving were associated with the physical activity level.

Method: A web based survey was conducted to 20-79 years old people who live in the metropolitan area and the Keihanshin area in Japan. The survey was carried out from 22nd to 25th September 2012. 1,650 responses were obtained. The survey items consisted of the perception, attitude, action, belief to power saving. The levels of physical activity were evaluated by International Physical Activity Questionnaire Short Version (the duration of walking time and moderate-to-vigorous physical activity (MVPA)). Path analysis was conducted in order to clarify the relationship between the power-saving action regulation factors, walk time (150 minutes or more / week), and MVPA (150 minutes or more / week).

Result: The indices of goodness of fit for path models were acceptable: GFI = 0.988 AGFI = 0.973, CFI = 0.969, RMSEA = 0.038 in walking time; GFI = 0.987, AGFI = 0.974, CFI = 0.968, RMSEA = 0.036 in MVPA. The perception of other people's engagements in power saving (path coefficient: 0.14) and the feeling of threat were positively associated with walk time. The limited perception of effectiveness in power saving (path coefficient: -0.13) and the awareness and habit of power saving (path coefficient: -0.15) were negatively related to walk time. The power-saving action (path coefficient: 0.08) was positively associated with MVPA.

Conclusion: The perception, attitude, action, and belief to power saving were associated with the physical activity level. However, each association was weak. Moreover, some associations were inconsistent with our hypotheses. Further examination would be needed to confirm the relationships between power-saving-related behavioral factors and physical activity.

Key words: power-saving consciousness, an ecological model, recommendation of physical activity, walking time, MVPA

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