

A body mass index cut-off point for determining endurance impairment in community-dwelling elderly

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In Thailand, the number of elderly trends to rapidly increase. Advancing age induces decrement of many body systems which impact on the physical performances. Currently, people behaviors truly change in which it may be a reason of increase the prevalence of overweight and obesity in Thai elderly. Previous studies reported that body mass index (BMI) was closely related to endurance performance in elderly. However, cut-off point of BMI for determining endurance impairment is unknown. Thus, the study investigated cut-off point of BMI for determining eudurance impairment in 194 community-dwelling elderly. The participants were interviewed their characteristics and health information including age, gender, smoking status, drinking status, and underlying disease. Then, they were assessed their endurance performance using the 6-minute walk test (6MWT). The findings reported that a cut-off point of BMI to indicate endurance impairment was 23.0 kg/m^2 (64.62% sensitivity, 46.51% specificity, area under the curve=0.5643). Furthermore, the findings showed a correlation of BMI and 6MWT (r = -0.24, *p-value*=0.001). Age, gender, smoking status, drinking status, and underlying disease also related to endurance ability (r = -0.159 to -0.334, *p-value*<0.05). Although there was a low correlation between BMI and 6MWT, it was a significant trend of health promotion. Furthermore, other factors should also be concerned for planning an appropriate management in order to increase endurance performance to be independently perform activities in daily living of the elderly.

Biography

Phiangdao Artchaithorn is a physiotherapist, and a master degree student in a Physical Therapy program, School of Physical Therapy, Khon Kaen University, Thailand.

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