

**DETERMINANTS OF PHYSICAL ACTIVITY
AMONG HIGH SCHOOL CHILDREN
IN MYAUNGMYA TOWNSHIP,
AYEYARWADDY DIVISION**

WIN YU KHAING

M.B.,B.S

**Master of Public Health (MPH)
University of Public Health, Yangon
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ABSTRACT

Physical activity is an important modifiable factor for improving public health, and there are still limited studies about physical activity and its correlates among adolescence in Myanmar. This was a cross-sectional study with the objective of to study the determinants of physical activity among high school children in Myaungmya Township, Ayeyarwaddy Division. A total of 240 students were assessed by self-administered questionnaires of physical activity in habitual week mainly based on Standard International Physical Activity Questionnaire (IPAQ).

Types of physical activity were categorized into intensity by estimating their metabolic equivalent of task (MET) according to IPAQ guideline. Light-intensity [Median (IQR)] was 7596 (1018.5), moderate-intensity was 2445.75 (2556), vigorous-intensity was 1620 (2870), moderate-to-vigorous-intensity was 4530.25 (4735.63) MET-minutes/week. Regarding to domains, physical activity in school [Median (IQR)] was 1005 (1015), during transportation was 978 (1339.88), in leisure time was 617 (1243.25), in part time jobs and domestic work was 1080 (2160), and in total four domains was 4530.25 (4735.63) MET-minutes/week. Total physical activity was mainly contributed by work and household domain (33.6%). Conclusively, physical activity of high school children were low level (27.5%, n=66), moderate level (39.6%, n=95), and high level (32.9%, n=79) in this study.

The associations between background information and physical activity were explored by non-parametric test since distribution of physical activity was non-normal ($p < 0.001$, skewness = 1.310) in this study. Physical activity was significantly associated with residence ($p < 0.001$), gender ($p < 0.001$), education ($p = 0.031$), family income ($p = 0.023$), and parents' education ($p = 0.025$ and 0.001 for father and mother respectively). It was negatively associated with school academic performance ($p = 0.004$) and extra-school studying time ($p < 0.001$ for both weekday and weekend).

In conclusion, physical activity of high school children in Myaungmya Township, Ayeyarwaddy Division was commonly moderate, significantly decreased in urban region, female groups, Grade X students, and negatively associated with

school academic performance and extra-school studying time. Work and household domain was mainly contributed to total physical activity and significantly associated with low family income and low parents' education level. Since physical activity in leisure time was significantly reduced and proportion of low physical activity was more than a quarter, promotion of physical activity preferably in leisure time is recommended in balance with extra-school studying time among high school children.