

PHYSICAL INACTIVITY AMONG CHILDREN AND ADOLESCENTS IN SINGAPORE – A PARADOXICAL ISSUE

Abstract

The health consequences of physical inactivity among youths are worrisome as sedentary lifestyles among youths become entrenched. Obesity rates among youths in Singapore are about 10%, but there are concerns that this rate is not sustainable over the longer term. Physical activity (PA) prevalence data in Singaporean youths are mixed as questionnaire data show adequate levels of PA engagement while HR monitoring data show very low levels of PA, in research employing single methods to capture the data. The study purpose of was to compare PA data garnered from questionnaire and HR monitoring in Singaporean youths. 280 youths aged 10-15 years, and of normal body weight, completed a Physical Activity and Exercise Questionnaire and wore HR monitors (Polar Vantage, NV) for 10 hours to gauge PA consumption over two weekdays and a weekend. Questionnaire responses revealed that 41% of primary school participants and 38% of secondary school participants experienced moderate-to-vigorous PA. HR data, over the weekday and weekend, on the contrary, showed that 86-94% of primary school participants and 94-99% of secondary school participants did not experience any moderate-to-vigorous PA (HR 140-159; HR >160 bpm). Both questionnaire and HR data showed no sex difference in PA engagement but HR data showed that younger youth were less sedentary (HR<120 bpm) than older youth. Younger youth aggregated 24 minutes and older youth aggregated 10 minutes at HR 140-159 and HR>160 bpm on the weekday. No vigorous PA (HR>160 bpm) was detected in participants on the weekend. In the best case scenario, PA engagement in Singaporean youths met only 40% of the recommended aggregation of 60 minutes of, at least moderate intensity PA, advocated by the Ministry of Health (MOH) in Singapore and others. Schools can play a significant part in discouraging sedentary behaviour and encouraging physical activity behaviours via holistic and coordinated intervention programmes targeted at all youths.

Key words: *physical activity, hearth rate, questionnaire*
