Physical activity and sedentary behavior relative to body mass index among Saudi school children in Saudi Arabia

Adel A Alhusaini
King Saud University, Saudi Arabia

Statement of the Problem: During the past few years' rapid developments in standards of living, mechanization and urbanization has a profound impact in the Kingdom of Saudi Arabia resulting in low physical activity and high sedentary behavior. Therefore, the purpose of the research is to provide normative data of physical activity and sedentary behavior indices of the Saudi Arabian school children in relation with BMI.

Methodology: This school-based cross-sectional study was conducted during the years 2015-2016 in Riyadh. A total of 357 children (boys-82, girls-275), within an age group of 10-16 years, from different schools of central Riyadh constituted the sample. Measurements included weight, height, sedentary behaviors (TV viewing, playing video games, computer use and homework), and physical activity using Physical Activity Questionnaire for Children (PAQ-C), and Godin and Shephard questionnaires.

Findings: The proportion of total sample (357), with boys comprising of 82 (23%) and girls of 275 (77%). The sample proportion stratified based on percentile of body weight constituted of 5.3% of underweight (19), 54.6% of normal (195), 18.8% of overweight (67) and 23% of obese (76) children. A high proportion (68.3%) of Saudi school children spent more than 2 hours on screen time (TV+PC) daily. PAQ-C reported 26.3% are less active, 51.5% are moderately active and 22.1% are highly active. Using ANOVA, no significant variation was shown in PAQ-C scores in relation to BMI. PA findings by Godin and Shephard questionnaire concluded that 70.3% are insufficiently active, 20.4% are moderately active and 9.2% are active. Analysis done by Kruskal-Wallis test showed significant difference observed in Godin moderate scores (P=0.01) and total scores (P=0.03) but not in other subcategories (strenuous, mild, Sweat) in relation to BMI.

Conclusion & Significance: Sedentary behaviors, physical inactivity and increased BMI among Saudi school children are a major public health concern. There is an urgent need for national policy promoting active living and healthy eating, and reducing sedentary behaviors among children in Saudi Arabia.

Biography
Adel A Alhusaini is an Assistant Professor in Rehabilitation department, College of Applied Medical Sciences at King Saud University, Riyadh, KSA. He has obtained his Master’s degree in Physiotherapy from Cardiff University, Cardiff, UK (2005). Also, he has obtained his PhD in Pediatric Neuromuscular Rehabilitation from School of Physiotherapy, Faculty of Health Sciences, University of Sydney, Sydney, NSW, Australia (2010). He has published more than 15 peer-reviewed publications and one book. He is the Chairman of Pediatric Neurorehabilitation Research group at KSU. Presently, he is working on the KACST project regarding sedentary behavior characteristics and physical activity levels in children of Saudi Arabia.

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