

CPHR Internship Awarded October 2006

What prevents adolescent girls from being physically active? The effects and interaction of growth and maturation

Strategic Training Fellow: **Lauren Sherar**
PhD Candidate
College of Kinesiology, University of Saskatchewan

Community-based Organization: ***in motion***
Saskatoon Health Region

Internship Summary

One of the most pervasive findings in epidemiological studies of physical activity (PA) is the decline in PA with age. Perhaps more alarming, is the fact that the decline in PA is greatest during the adolescent (pubertal) years. Moreover, it is also well established that girls are less active than boys at all ages. Puberty will likely impact girl's PA (and barriers to PA) because of the physical changes occurring, such as breast development and widening of the hips, and the social implications associated with these changes. However, prior research has only examined barriers to PA based on chronological age (i.e. grades in school). Examining barriers based on chronological age does not allow one to ascertain the impact of growth, maturation, and barriers to PA because girls in the same grade in school will differ considerably in their degree of physical maturity. For example, some 12 year old girls are already sexually mature, others are in the process of maturing, and others will not begin the process for several more years. Therefore girls of the same age but differing maturity status may experience different barriers to PA.

Physical activity participation is also affected by culture, ethnicity and socioeconomic status. Thus the objective of this study is to investigate the role of maturation (puberty) on PA patterns of adolescent girls enrolled in three culturally and economically diverse schools. Specifically, we will identify the effects of maturation on girl's barriers to PA.

Three hundred adolescent girls will be invited to participate from three schools representing the ethnic and socio-economic diversity of Saskatoon. Each girl will undergo standard body measurements, have their maturity assessed. In addition each girl will be given an electronic monitor to wear for a week to assess their PA after which time each girl will be asked to complete a questionnaire on barriers to PA.

I will be collaborating directly with ***in motion*** on this project. ***In motion*** is a community based multifaceted health promotion strategy, whose mandate is to encourage Saskatoon citizens to increase PA. The organization has highlighted the decline in adolescent girls' PA as a problem and welcomes research in this area. Findings from this study may help in the design of community based strategies to increase adolescent girls' PA. Preventing the decline in PA in this group may be the first step in addressing the early onset of obesity and may help lower the risk of adult obesity.