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## COMPARISON OF HEALTH RELATED PHYSICAL FITNESS AMONG A GROUP OF CYCLING AND NONCYCLING SCHOOL GIRLS IN THE ANURADHAPURA EDUCATIONAL ZONE

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Physical fitness is defined as the ability to perform muscular work satisfactorily. It is known that those who are active during childhood tend to be active during adulthood also. At present, regular exercise during childhood development is not given due attention in Sri Lanka.

A descriptive comparative study was conducted to compare health related physical fitness between cycling and non cycling school girls from the district of Anuradhapura. Their cardiovascular fitness, muscular strength, muscular endurance, flexibility and body composition were assessed using the Fitnessgram. Comparisons were made between cycling (n=58), non-cycling walking (n=21) and non-cycling passive transport (n=39) groups. Statistical analysis of continuous variables was done using the one way ANOVA test and the chi square test was used to analyze categorical variables.

Mean values of maximum oxygen consumption for the three groups, cycling, walking and passive transport were, 22.3 ml.kg<sup>-1</sup>min<sup>-1</sup>, 22.4 ml.kg<sup>-1</sup>min<sup>-1</sup> and 21.6 ml.kg<sup>-1</sup>min<sup>-1</sup> respectively. This revealed a statistically significant difference in the cardio-respiratory endurance between cycling or walking and passive transport groups (p<0.006). Mean values for body fat percentage for the cycling, non-cycling walking and passive transport groups were 25.0%, 21.2% and 25.5% respectively. There was a significant difference (p< 0.002) between cycling or passive transport and non-cycling walking groups.

This study shows the importance of promoting active transport such as walking among school children to maintain a higher cardio-respiratory fitness. Significantly lower fat percentage in the walking group indicates walking as a better exercise than cycling, or the walking group belonging to a lower socio economic status with poor nutrition.