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Letter to the Editor

Do South African Children Actively Commute to School?

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Dear Editor-in-Chief

There have been expressed concerns of decline in children physical activity, worldwide (1). Only 20% of 13-15 yr old children from 105 different countries met the WHO physical activity guidelines stipulating at least 60 min of daily moderate-to-vigorous physical activity (2). Active transport to school can contribute to children's physical activity and health (3, 4). It helps to maintain healthy weight (4) and improves cardiovascular risk profiles (5) in children and young people. As such, active commuting to school should be promoted as a strategy to promote children's health and well-being (5).

While there are several studies (3-7) examining children's active transport to school in many countries, and with different perspectives or focus and contrasting findings, scant information exist in African children, and more specifically, South Africa. In a systematic review of active transportation in Africa among children and youth indicated that active transport research in Africa is in its infancy (8).

Thus, this present study examines active commuting to school among South African primary school children in Central Pretoria, where information is lacking. Investigating active transport to school would help to inform public policy concerning physical activity promotion among children.

This cross-sectional study involved 1136 primary school children (548 boys and 588 girls) aged 9-13 yr attending public schools in Central Pretoria, South Africa. Detailed of the methods is previously described (9). Commuting physical activity was assessed in the children by asking them how they travel to and from school; and the time spent daily in physically active commutes to and from school. The response alternatives were: 1= Not at all; 2=Less than 15 min; 3=15-30 min; 4=30-45 min; 5=45- 60 min; 6=more than 60 min.

Overall, 50.0% of the children indicated being regularly driven to school, public transport (12.6%), and school bus (12.4%). However, 19% walked to school while only 4.2% walked and took a bus. Majority (53.4%) of girls are transported to school by car compared to boys (46.5%). About 58.5% spent less than 15 min walking to school; 34% between 15 and 30 min; 3.2% between 30 and 45 min; while few spent between 45 and 60 min to school.

Approximately 76% South African children in this study are being transported to school by other means than walking or bicycling (in this case, active commuting), a finding consistent with Puckree et al. (10) study involving South African primary school children in KwaZulu-Natal, in which 72% of the children were transported to school, instead of walking. Other studies (3-7) (not minding the methodological variations inherent in the definition and measurement of active commuting to school) elsewhere too, have re-

ported children being transported to school rather than walking, a phenomenon commonly observed among schools in urban settings. Even those (58.5%) who walked to school spend less time (less than 15 min) for walking to school. Lee et al. (11) in a systematic review reported that of the 32 studies that assessed the association between active commuting to school and physical activity or weight in children.

Table 1: Mode of transportation to school

	Boys		Girls		Combined		
Mode of transport	**n**	**%**	**n**	**%**	**n**	**%**	***P*-value**
Car	254	46.5	320	53.4	574	50.0	0.03
Public	72	13.1	77	13.5	149	12.6	0.18
School bus	68	11.5	75	12.8	141	12.4	0.24
Walk	120	22.7	99	16.8	219	19.0	0.02
Walk and take a bus	28	5.1	17	3.2	45	4.2	0.36
Ride bicycle	6	1.1	0	0	6	0.8	0.01

This stressed the importance of active commuting to school in children. Intuitively, the high prevalence of passive commuting to school observed by the children in this study may reduce their physical activity level with associated consequences for their health and well-being.

The finding of this study demonstrated that a greater proportion of boys adopted active modes of travel (walking) to school than girls (22.7% vs. 16.8%), with significant difference (P= 0.02). Like other studies examining gender differences in mode of travel to school, there have been some studies reporting that boys are more likely to adopt active modes of travel to school than girls (3, 7). Given the decline in PA levels among children, walking could provide a feasible option to increase PA levels and health co-morbidities associated with physical inactivity. Besides, walking to school by children is simple and effective strategy, implemented almost everywhere, requiring neither training nor equipment.

Though this study did not investigate the correlates of active school transport among the sample, it did however, provide baseline data on active school transport in an under researched, urban-based setting, for future comparative studies on children's active school transport in South Africa.

Majority of the South African children do not walk or bike to school. Given the escalating epidemics of overweight and obesity in children, walking or cycling to school should be encouraged in children, as a form of promoting physical activity.

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References

1. Hallal P, Andersen LB, Bull FC, Guthold R,Haskel W, Ekelund U, et al. (2012). Global physical activity levels: surveillance progress, pitfalls and prospects. *Lancet*, 380 (9838):247-257.
2. WHO (2010). *Global recommendations on physical activity for health*. Geneva: WHO.
3. Faulkner G, Stone M, Buliung R, Wong B, Mitra R (2013). School travel and children's physical activity: a cross-sectional study examining the influence of distance. *BMC Public Health*, 13:1166.
4. Pizarro AN, Ribeiro JC, Marques EA, Mota J, Santos M (2013). Is walking to school associated with improved metabolic health? *Int J Behav Nutr Phys Act*, 29:10:12.
5. Larouche R, Chaput J, Leduc G, Boyer C, Belanger P, LeBlanc AG, et al. (2014). A cross-sectional examination of socio-demographic and school-level correlates of children's

school travel mode in Ottawa, Canada. *BMC Public Health*, 14:497.
6. Yee-Man Wong B, Faulkner G, Buliung R, Irving H (2011). Mode of shifting in school travel mode: examining the prevalence and correlates of active school transport in Ontario, Canada. *BMC Public Health*, 3:11:618.
7. Jago R, Wood L, Sebire SJ, Edwards MJ, Davies B, Banfield K, et al. (2014). School travel mode, parenting practices and physical activity among UK year 5 and 6 children. *BMC Public Health*, 16:14:370.
8. Larouche R, Oyeyemi AL, Prista A, Onywera V, Akinroye KK, Tremblay MS (2014). A systematic review of active transportation research in Africa and the psychometric properties of measurement tools for children and youth. *Int J Behav Nutr Phys Act*, 18:11:129.
9. Goon DT (2013). Fatness and fat patterning as independent anatomical characteristics of body composition: a study of urban South African children. *Iran J Pediatr*, 23 (4):423-429.
10. Puckree T, Naidoo P, Pillay P, Naidoo T (2011). Underweight and overweight in primary school children in eThekwini district in Kwa-Zulu-Natal, South Africa. *Afr J Prm Health Care Fam Med*, 3(1):203-206.
11. Lee MC, Orenstein MR, Richardson MJ (2008). Systematic review of active commuting to school and children's physical activity and weight. *J Phys Act Health*, 5 (6):930-949.