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What influences children's walking and cycling to school?

Findings from the CLAN study

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There is growing evidence that children who are more active experience better physical and psychosocial health outcomes, including reduced risk of chronic disease later in life [1].

'Active commuting', that is walking or cycling to school, can make a significant contribution to children's overall levels of physical activity. Indeed, children who walk or cycle to school tend to be more physically active overall, compared to children who are driven by car [2, 3].

This study sought to inform the development of effective strategies to promote active commuting amongst school children by examining the factors that affect this important behaviour, and by examining how these influences affect children as they get older.

Study design and methods

The CLAN study was a longitudinal design involving surveys of parents and children in metropolitan Melbourne. In 2004, the study involved 591 families with children in grade 2 (younger children) or in years 7-10 (adolescents). Four hundred and eighty six families participated in the follow-up survey in 2006 at which time the children were in grade 4 or years 9-12. The study examined active commuting behaviours as well as personal, social and environmental factors affecting those behaviours.

Current Australian guidelines recommend that children spend at least 60 minutes/day in activities that are of a moderate-to vigorous-intensity [4] such as organised sports (e.g. tennis or netball), active free-play (e.g. playing in the backyard or playing with the dog) and active commuting (e.g. walking and cycling to/from school).

Are children actively commuting to school?

The study found considerable potential for improvement in terms of the number of children walking or cycling to school. Fifty percent of the study children did not walk or cycle to school at all, and very few children, particularly girls, cycled to or from school. Only about a quarter of children actively commuted at least once a day.

There were no differences between younger children and adolescents in terms of the average number of active commuting trips to and from school. However, in both age groups boys walked or cycled to school more often than girls.

Fifty percent of the study children did not walk or cycle to school at all. Only about 25% actively commuted at least once a day.

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What happens when children get older?

As the study followed children growing up, it found that children actually improved their active commuting behaviour. This suggests that age-related declines in physical activity described in other studies may be mainly due to declines in other types of physical activity, such as active free play among younger children and declines in organised sport among adolescents.

At follow-up in 2006, it was found that on average, younger children increased their active commuting trips by more than one trip per week, and adolescents increased by more than one trip per fortnight. Approximately 50% of younger children and 25% of adolescents increased their active commuting. Only 15% of children decreased their active commuting between 2004 and 2006.

What influences active commuting?

The factors that influence children's active commuting are many and varied. There are also several 'levels' of influence, including: personal barriers (e.g. not having the energy); social factors (e.g. having many friends in the area with whom to walk or cycle); and physical environmental factors (e.g. having heavy traffic in the neighbourhood).

Individual and social factors?

Individual factors did not seem to present a significant barrier for either younger children or adolescents in this study. However, the neighborhood social environment was found to be important, particularly for younger children.

Younger children whose parents knew many people in their area or had many friends in the area were more likely to walk or cycle to school. They were also more likely to increase their active commuting as they got older.

Similarly, adolescents whose parents knew many people in their area and who felt people in their area generally got along were twice as likely to actively commute every day.

The findings suggest that strengthening social ties within the local community and focusing on parents' perceptions of their neighbourhood may help to promote children's active commuting.

The physical environment?

Aspects of the physical environment also seem to be important.

For young children, factors found to reduce the likelihood of active commuting included having a hilly neighbourhood; having limited public transport in their area; and concerns about stranger danger.

Factors found to increase the likelihood of active commuting included: the presence of many alternative routes to destinations; and heavy traffic in the local streets.

The presence of lights and crossings was a factor that was significantly related to adolescents' active commuting. A lack of lights or crossings was associated with a 60% lower likelihood of increasing active commuting trips. Similarly, adolescents whose parents were satisfied with the number of pedestrian crossings in their neighbourhood were more than twice as likely to increase their active commuting over time.

The findings suggest that neighbourhood infrastructure and policies that address pedestrian safety are important for the promotion of physical activity.

Where to from here?

The CLAN study highlights the potential to improve children's levels of physical activity through increased active commuting to and from school, and supports the need for effective programs in this regard.

The study identifies that future strategies should address the range of factors influencing active commuting behaviours. This includes social networks and the physical environment of the local neighbourhood, particularly the pedestrian infrastructure.

Those closest to young people, including families and schools, have a role to play in encouraging improved social networks within neighbourhoods to promote active commuting, whilst neighbourhood infrastructure factors can be directly addressed by urban planners and policy makers.

References

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