



Association between Parental Perceptions and Active Commuting to School in Children

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INTRODUCTION

- United States children are experiencing an epidemic of obesity¹
- Less than 25% of children meet current physical activity guidelines²
- Active commuting to school (ACS) is a sustainable way to be active through different life stages³

STUDY OBJECTIVES

- To investigate the association of various parental psychosocial constructs related to ACS and child ACS status
- To examine parental perceptions of the neighborhood and school environment and child ACS status

METHODS

- Data:** Safe Travel Environment Evaluation Texas Schools (STREETS) study⁴
- Participants:** Third grade parent-child dyads (n=260)
- Variables:**
 - Child ACS (0 = no, 1 = yes)
 - Parent perceptions of child ACS related constructs (self-efficacy, independent mobility, modeling, concerns, and support)
 - Parent environmental perceptions (walkability, school built environment, school neighborhood environment, social control, social cohesion, social engagement)
 - Measures adapted from SRTS, UH-PEAK, NEWS, Texas SPAN
- Analysis:** Logistic regressions were used to examine the association between parental perceptions and child ACS.

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RESULTS

Table 1. Baseline school-level characteristics for parents of third graders (n = 32).

Characteristic	Percentage
Girls	51.3%
Racial/ethnic minority (non-White Hispanic and Other)	60.4%
Parent highest education is less than a college graduate	37%
ACS*	50.4%

Table 3. Associations between parental perception of physical activity, perceptions of environment, and child ACS status (n=260)

Parental Perception	Exposure	AOR	95% CI	p-value
ACS	ACS SE	11.4	[6.0, 21.8]	<0.0001
	ACS support	11.7	[6.6, 20.8]	<0.0001
	ACS concerns	0.3	[0.2, 0.4]	<0.0001
	ACS IM	1.8	[1.5, 2.1]	<0.0001
	PA modeling	1.4	[0.9, 2.0]	0.09
	SE PA habits	0.9	[0.6, 1.3]	0.51
Environmental	Neighborhood walkability	1.2	[0.7, 2.3]	0.50
	Neighborhood IM	1.8	[1.0, 3.2]	0.07
	School built environment	1.1	[0.6, 1.9]	0.88
	School environmental perceptions	0.7	[0.2, 2.0]	0.47
	Safety perceptions total	1.7	[0.6, 4.7]	0.29
	Social engagement	1.5	[1.1, 1.9]	0.006
Community engagement	Social control	1.3	[1.0, 1.7]	0.03
	Social cohesion	0.9	[0.6, 1.4]	0.72
	Social capital	1.7	[1.1, 2.6]	0.01

Table 2. Descriptive statistics of exposure variables (n=260).

Parent perception	Exposure	Mean (SD)	Range
ACS	ACS self-efficacy	2.6 (0.7)	1-4
	ACS concerns	2.2 (0.6)	1-4
	ACS support	2.2 (1.2)	1-5
	ACS independent mobility	4.9 (2.7)	1-10
	Adult physical activity modeling	3.4 (0.7)	1-5
	Self-efficacy for physical activity habits	3.1 (0.8)	1-4
Environmental	Neighborhood walkability	2.4 (0.5)	1-3
	Neighborhood independent mobility	1.4 (0.5)	1-3
	School built environment	2.3 (0.4)	1-3
	School environmental perceptions	2.7 (2.8)	1-3
	Safety perceptions total	2.2 (0.3)	1-3
	Social cohesion	3.7 (0.7)	1-5
Community engagement	Social control	3.5 (1.2)	1-5
	Social engagement	2.5 (1.7)	1-5
	Social capital	3.2 (0.8)	1-5

Means of self-reported parental SE, parental ACS support, parent rated IM were associated with higher odds of children's ACS.

Mean of parental ACS concerns were associated with lower odds of child ACS



CONCLUSIONS & NEXT STEPS

Conclusions

- Parents' perceptions of ACS and PA impact child commute behavior. Researchers investigating ACS should focus on parent engagement in ACS programs to increase the likelihood of ACS

Next Steps

- Future policies should focus on safe infrastructure and investment in safe improvements to improve parental perceptions

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