Examining the availability and equitable distribution of recreational assets for physical activity across school neighborhoods in Central Texas

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INTRODUCTION

Children’s physical and intellectual development can benefit from regular physical activity and exercise.1 Parks and recreational facilities provide opportunities for children to engage in physical activity and should be equitably distributed across neighborhoods.

AIM

To determine the availability of recreational facilities for physical activity in school neighborhoods of Central Texas.
To examine the associations between neighborhood-level income and racial diversity and the availability of recreational facilities.

METHODS

Data: Safe Travel Environment Evaluation Texas Schools (STREETS) study 2
Participants: Public elementary schools (analytic sample: N = 83)
Variables (calculated using GIS)
- Park availability (low: T1, medium-high: T2 & T3): count → tertiles → dichotomize
- Recreational centers (0 vs. ≥1 facilities)
- Sport/fitness instructional facilities (0 vs. ≥1 facilities)
- Median household income (categorized by quartiles)
- % of minority residents (low-some diversity: <50%, high diversity: ≥50%)
Analysis: Logistic regression was used to examine the association between neighborhood-level socio-demographics and availability of each recreational facility

RESULTS

HIGH Racial/Ethnic Diversity 55% LOW Park Availability 35%
NO Recreational Centers 19% NO Sports/Fitness Instruction 36%

Higher-income (vs. low) school neighborhoods had lower odds of having medium-high park availability (mid-high income: OR=0.22, 0.05-0.96) and any sports/fitness instruction (high-income: OR=0.02, 0.002-0.24).

School neighborhoods with high diversity (vs. low-some) had lower odds of having any recreational center (OR=0.08, 0.01-0.46) and any sports/fitness instruction (OR=0.08, 0.01-0.68).

CONCLUSIONS

A high proportion of school neighborhoods in Central Texas have low availability of recreational facilities for physical activity.
Lower-income neighborhoods have higher access to some facilities, suggesting policies are in place to promote economic equity.

Acknowledgements & references


The STREETS study is funded by the Eunice Kennedy Shriver National Institute of Child Health & Human Development, grant number R01 HD097669 and the Michael & Susan Dell Foundation through the Michael & Susan Dell Center for Healthy Living. The STREETS Study would like to thank the City of Austin Public Works Department, and all participating school districts, campuses, and participants for their investment in the study.