P46: The Role of Community Factors in Physical Health Outcomes for Young Children with and without ADHD

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INTRODUCTION

- Community factors play a critical role in shaping children's mental and physical health (Butler et al., 2012; Kaiser et al., 2022).
- The Child Opportunity Index (COI), a composite measure assessed at the census tract level, captures key neighborhood resources and conditions that contribute to child well-being.
- However, limited research has explored how community factors relate to physical health outcomes in young children, especially among children with Attention-Deficit/Hyperactivity Disorder (ADHD).
- This study investigates the association between COI and physical health indicators in a diverse clinical sample of young children with and without ADHD.

METHODS

Participants

127 children ages 4-7 with ADHD and 96 typically developing (TD; M_{age} = 5.48, SD_{age} = .74, 65.9% male, 81.6% Hispanic/Latinx, 93.3% White, 8.1% Black).

Measures

- Community Factors: Child Opportunity Index (COI).
- Fitness: Side Jump Test (SJ).
- Physical Activity: Family Nutrition and Physical Activity (FNPA).
- Caloric Intake: Calculated consumed calories (kcal) from daily food diaries.
- Nutrition Quality: Healthy Eating Index (HEI).

RESULTS

- Higher COI significantly predicted better HEI (β = .20, p = .007), and FNPA (β = .26, p <.001), while predicting lower kcal (β = -.14, p = .038).
- ADHD diagnostic status significantly predicted worse HEI (β = -.15, p = .038), higher kcal (β = .22, p = .001) and worse FNPA (β =-.24, p<.001).
- Girls consumed less calories than boys, while higher levels of maternal education was associated with greater caloric intake (β = -.21 - .15, p = .002 -.030).
- There were no significant interactions between COI and ADHD.

Both neighborhood factors and ADHD diagnosis were associated with physical health outcomes in early childhood.

	β	*p*
Fitness (SJ):		
Gender	-0.06	.405
Maternal ed.	-0.06	.412
ADHD	-0.16	**.027***
COI	0.17	.807
Physical Activity (FNPA):		
Gender	-0.05	.494
Maternal ed.	0.16	.818
ADHD	-0.24	**<.001****
COI	0.26	**<.001****
Caloric Intake (kcal):		
Gender	-0.21	**.002****
Maternal ed.	0.14	**.47***
ADHD	0.22	**.001****
COI	-0.14	**.038***
Nutrition Quality (HEI):		
Gender	-0.16	.825
Maternal ed.	-0.17	.818
ADHD	-0.15	**.038***
COI	0.20	**.007****

Note. *p < .05. **p < .01. ***p < .001.

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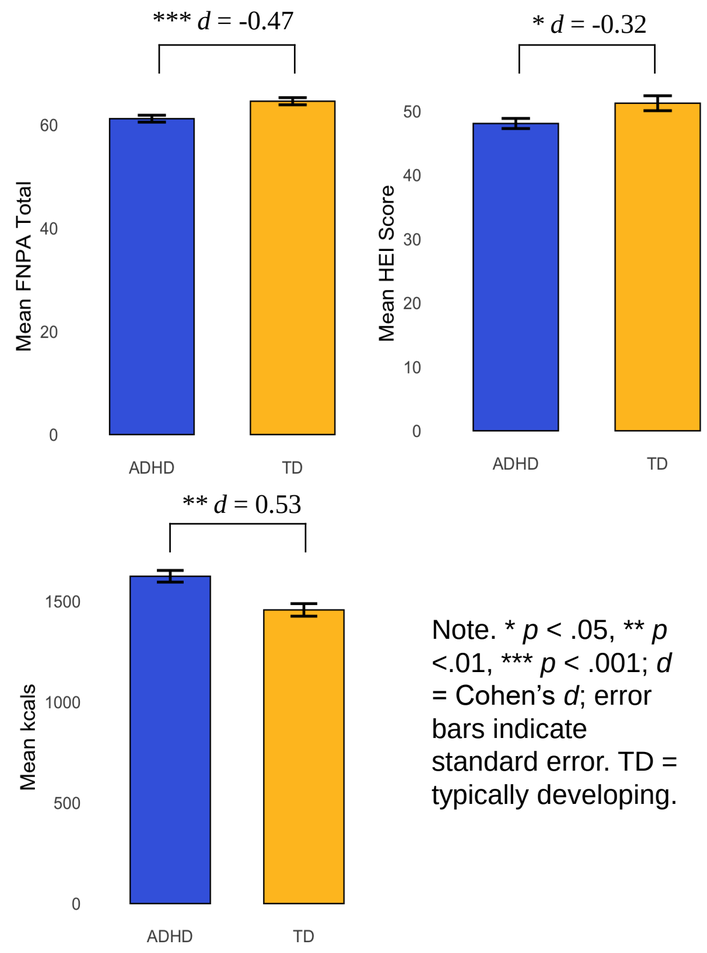
Physical Health Outcomes in Children with and without ADHD



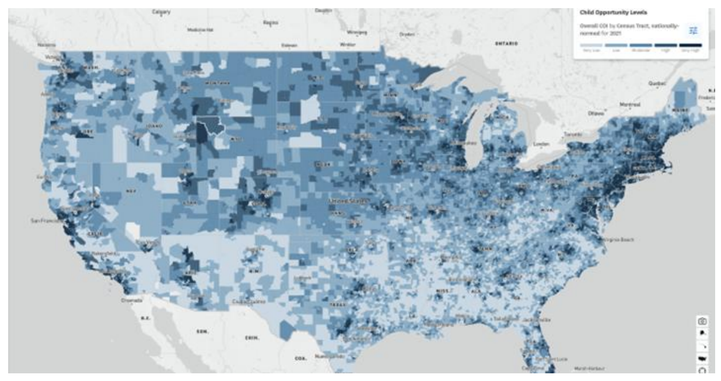
Note. * $p < .05$, ** $p < .01$, *** $p < .001$; d = Cohen's d; error bars indicate standard error. TD = typically developing.

DISCUSSION

Greater neighborhood resources, as measured by the COI, was associated with increased physical activity, caloric intake, and healthier eating habits among young children. The lack of significant interactions between COI and ADHD status suggests that neighborhood opportunity may be broadly beneficial to children regardless of their diagnostic status. Further research is needed to explore this hypothesis.

Child Opportunity Index

- Education Index
  - Indicator examples: Early childhood education, elementary, secondary and post-secondary education, educational resources.
- Health & Environment Index
  - Indicators: Pollution, healthy environments, safety-related resources, health resources.
- Social & Economic Index
  - Indicators: Employment, wealth, economic, housing, social resources.



COI Scores:

- Range from very low opportunity (1) to very high opportunity (5).
- Metro, state, and nationally normed scores available.

CONTACT INFORMATION

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