Organizational resources as capital: Configurations of resource use and adolescent health

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Neighborhood Resource Capital

• Neighborhood organizational capacity; the ability of residents to access and benefit from organizational resources (Peterson, Krivo, & Harris, 2000)

• Neighborhood and family economic conditions are related to organizational capacity
  – Indicators of neighborhood disadvantage related to presence of resources (Queralt & Witte, 1998) and resource use (Coulton & Irwin, 2009)
  – Family income related to eligibility for and accessibility of resources
Resources and Child Health

• The presence of organizational resources (e.g. library, recreation center) is positively related to children’s health (Fan & Chen, 2010) and physical activity (Kasehagan, Busacker, Kane, & Rohan, 2012)

• Neighborhood and family economic conditions are also related to child health

• Does organizational resource use explain the relationship between economic conditions and child health?
Modeling Organizational Resource Use

• Common approach is to sum the number of resources present or used
• Distinguish between “positive” vs. “negative” resources
• Does not capture variability in the ways that people use resources
• Are patterns of resource use differentially related to children’s health?
Latent Class Analysis

• Variable-centered analytic approaches (regression, factor analysis) identify relationships between variables

• Person-centered analytic approaches (LCA, cluster analysis) identify qualitative differences between individuals

• LCA is a model based approach
  – Formal tests of model fit
  – Estimates of the probability of class membership
  – Facilitates model selection and reduces bias associated with cluster misspecification
Current Study

1. Uses LCA to identify profiles of resource use
2. Does resource use mediate the relationship between neighborhood and family economic status and child health?
Sample

• Making Connections
  – A neighborhood transformation, family development initiative

• Three waves of data collection
  – Wave 2 collected between 2005-2007

• 1,794 families with children (0-17)
  – 497 families with children between 9-17

• Implemented in 10 cities
## Sample

<table>
<thead>
<tr>
<th></th>
<th>%/Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td><strong>N = 1,794</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>41%</td>
<td></td>
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<tr>
<td>Black</td>
<td>27%</td>
<td></td>
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<tr>
<td>White</td>
<td>21%</td>
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</tr>
<tr>
<td>Caregiver employed</td>
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<tr>
<td>Child is female</td>
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<td>Child age</td>
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<td>Household income</td>
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Resource Use

• Caregivers reported whether any household member had used 8 resources in the prior 12 months

• Child care services
• Check cashing facility
• Money transfer service
• After school programs

• Community college
• Rec./community center
• Library
• Welfare office
Economic Status

• Neighborhood disadvantage
  – Census tract of home address linked with 2000 census data
  – Average of % pop. in poverty, with less than high school education, unemployed, female–headed households

• Family income
  – Caregivers reported total household income in the prior 12 months
Child Health

• Asthma
  – “Has a doctor, nurse, or other medical professional ever told you that [CHILD] has asthma?” Yes (1), No (0)

• Health condition
  – “Has a health professional ever told that [CHILD] has a physical, learning, mental, or chronic health condition...” Yes (1), No (0)

• General health
  – “In general, would you say [CHILD]’s health is” Excellent (5) – Poor (1)
Identifying Profiles

- Models run on full (N=1,794) sample in Mplus
- Specified 2-5 classes
- Four class model selected based on fit statistics and conceptual clarity

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<tr>
<th></th>
<th>$G^2$</th>
<th>$p$</th>
<th>AIC</th>
<th>BIC</th>
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<td>17,707</td>
<td>17,949</td>
<td>17,808</td>
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Low-use:  
Class proportion (γ) N=663 (37%)

High-use:  
Class proportion (γ) N=126 (7%)

Educational services:  
Class proportion (γ) N=268 (15%)

Activity spaces:  
Class proportion (γ) N=735 (41%)
Resource Use as a Mediator

- Neighborhood Disadvantage
- Family Income

- Asthma
- Health Condition
- General Health
Resource Use as a Mediator

- High Use
- Educational Services
- Activity Spaces

- Neighborhood Disadvantage
- Family Income

- Asthma
- Health Condition
- General Health
Resource Use as a Mediator

Models adjust for: Employed, Race/ethnicity, child sex, child age
Resource Use as a Mediator

Models adjust for: Employed, Race/ethnicity, child sex, child age
Conclusions

• Families use resources in different ways
• Higher income families are more likely to be in the activity spaces profile and less likely to be in the high use profile (relative to the low use profile)
• Children in the high use profile are more likely to have asthma while children in the educational services profile have better health
Next Steps

• Direction of effects
  – Capitalize on multiple waves

• Are profiles equivalent for families with younger vs. older children?

• Integrate objective data from business census
  – Are presence and use related?
Thank You!
# Child Health by Use Profile

<table>
<thead>
<tr>
<th></th>
<th>Asthma OR</th>
<th>Asthma SE</th>
<th>Health Condition OR</th>
<th>Health Condition SE</th>
<th>General Health b</th>
<th>General Health SE</th>
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<td><strong>1.21</strong></td>
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<tr>
<td>Edu. Services</td>
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<td>.70</td>
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<td>Activity spaces</td>
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<tr>
<td>Child age</td>
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