An Examination of Exposure to Traumatic Events and Symptoms and Strengths for Children Served in a Behavioral Health System of Care

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The PARK Project

- Funding period: 2002-2008
- The Partnership for Kids or PARK Project was an innovative approach to community-based service delivery through partnership with local schools, families, providers and state agencies, for the purpose of producing positive outcomes for children and youth with serious emotional and behavioral challenges
- School-based System of Care, with staff members located in targeted schools
- Offered programs in collaboration with local agencies and the Bridgeport Board of Education in 7 Bridgeport Schools

The PARK Project

- Comprehensive System of Care
  - Universal Intervention in the Schools (PBIS)
  - Social Marketing Campaign
  - Family Organization
  - Youth Program
  - Behavioral Health Services
- Systems Change
  - True partnerships are developed between parents, youth, service agencies, and schools

PARK: Behavioral Health Services

- 284 Youth & Families
  - Gender: 63% Male, 37% Female
  - Age: Mean = 11.5 (Range = 2-19)
  - Race & Ethnicity: 65% Latino, 36% African American, 15% Caucasian, 2% Biracial, 1% Asian/Pacific Islander, 1% American Indian
  - 85% Family income at or below Federal poverty level
  - Top Diagnoses: ADHD (36%), Mood Disorders (26%), Oppositional Defiant Disorder (22%), Adjustment Disorders (17%), 86% of GAF Scores 40-64
  - Top Presenting Problems: Oppositional Behavior (65%), Academic (57%), Peer (54%), Depressed (44%), Violent (43%), Hyperactive (41%), Attention (40%)

The PARK Outcome Study

- 194 families participated in outcome study:
  - Youth predominantly male (66%)
  - Mean age: 11.62 (Range = 4-18)
  - 62% Latino; 31% African American; 13% Caucasian; 3% Biracial; 1% Asian/Pacific Islander
  - 87% Family income at or below the Federal poverty level

Sample Demographics (N = 134)

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>91</td>
<td>68</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>32</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>83</td>
<td>61.9</td>
</tr>
<tr>
<td>Black/African American</td>
<td>40</td>
<td>29.9</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above poverty level</td>
<td>38</td>
<td>28</td>
</tr>
<tr>
<td>Below poverty level</td>
<td>96</td>
<td>72</td>
</tr>
<tr>
<td>Caregiver’s Relationship to Child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological parent</td>
<td>110</td>
<td>82.1</td>
</tr>
<tr>
<td>Adoptive / step parent</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td>Foster parent</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Sibling</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Aunt or Uncle</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>Grandparent</td>
<td>11</td>
<td>8.2</td>
</tr>
<tr>
<td>Legal guardian</td>
<td>1</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Sample Demographics (cont.)

<table>
<thead>
<tr>
<th>Positive History of Trauma</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>(caregiver reported)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical abuse</td>
<td>10</td>
<td>7.5</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>41</td>
<td>30.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>44</td>
<td>37.8</td>
</tr>
</tbody>
</table>

N - children who received the service

Dosage: mean hours of service

<table>
<thead>
<tr>
<th>Service Type</th>
<th>N</th>
<th>Dosage: mean hours of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Coordination</td>
<td>133</td>
<td>50.6</td>
</tr>
<tr>
<td>Family Advocacy</td>
<td>76</td>
<td>19.8</td>
</tr>
<tr>
<td>Therapeutic Mentoring</td>
<td>48</td>
<td>64.4</td>
</tr>
<tr>
<td>Psychiatric Consultation</td>
<td>47</td>
<td>13.8</td>
</tr>
<tr>
<td>After School Services</td>
<td>21</td>
<td>102.2</td>
</tr>
<tr>
<td>TOTAL dosage</td>
<td>134</td>
<td>105.7</td>
</tr>
</tbody>
</table>

Outcome Measures

- Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1983)
  - Internalizing Problems Subscale – e.g., withdrawal, somatic complaints, anxiousness, and depression
  - Externalizing Problems Subscale – e.g., delinquent and aggressive behavior
  - Alpha levels: Int. = 0.90; Ext. = 0.92

- Behavioral and Emotional Rating Scale (BERS-2C) (Epstein & Sharma, 1998)
  - Strength Index
  - Higher scores > greater emotional & behavioral strengths
  - Alpha level = 0.88

Multilevel Modeling (MLM)

- Level 1: WITHIN-PERSON
  - Estimates an individual growth trajectories for the dependent variables across time

- Level 2: BETWEEN-PERSON
  - Individual growth trajectories (i.e., the intercept and slope estimates) become the outcome variables; child characteristics are included to explain the variability
  - Multiple observations over time are nested within the individuals
  - Permits use of all the data when individuals have some missing observations

Results

- All children receiving services exhibited significant improvements (increased emotional & behavior strengths and decreased internalizing and externalizing problem behaviors) while receiving services and at 18 months follow-up
- Children with a history of exposure to traumatic events improved more slowly than children without a traumatic events history on both strengths and internalizing problem behaviors
- Gender also influenced improvement in internalizing symptoms as boys improved more slowly than girls

Behavioral & Emotional Strengths (Whitson, Connell, Bernard, & Kaufman, in revision)

Graph showing the change in Behavioral & Emotional Strength Index scores over time for children with and without a trauma history.
Internalizing Behavior Problems
(Whitson, Connell, Bernard, & Kaufman, in revision)

![Graph showing Internalizing Behavior Problems](image1)

Baseline 6 month 12 month 18 months
CBCL Internalizing T-Scores
Girls - No Trauma Hx
Girls - Trauma Hx
Boys - No Trauma Hx
Boys - Trauma Hx

Model C (controlled effects of trauma)
Slope effect: $\gamma = 1.13, p = .08$
Gender on slope: $\gamma = -1.62, p < .05$

Externalizing Behavior Problems
(Whitson, Connell, Bernard, & Kaufman, in revision)

![Graph showing Externalizing Behavior Problems](image2)

Baseline 6 month 12 month 18 months
CBCL Externalizing T-Scores
No Trauma Hx
Trauma Hx

Model B (uncontrolled effects of trauma)
Intercept effect: $\gamma = 3.09, p = .09$

Implications & Future Directions
- Positive clinical outcomes in SOC
- Negative impact of trauma
- Highlight need to examine histories of traumatic events and how to more effectively serve children with trauma histories
  - Identification of trauma exposure, moderators of trauma, and trauma-related outcomes
  - Trauma-informed treatment and services
- Future Studies: Identify other risk factors, protective factors, and types of services related to clinically significant change

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