FOCUSED QUESTION
What are the effects of protective factors and developmental assets on the emotional resiliency of high-risk youth?


CLINICAL BOTTOM LINE:

This Level II secondary analysis study analyzes multi-wave data obtained from a longitudinal study (the Project on Human Development in Chicago Neighborhoods) by grouping the participants into unexposed, witness, and victim comparison groups to determine the effects of protective factors and developmental assets on resiliency in high-risk youth. The researchers identified numerous environmental factors (including neighborhood social control and organizations/services) that correlated with developmental benefits for high-risk youth. These protective factors (including positive peer influence, time spent in positive structured activities, and adult support) as well as developmental assets (supportive relationships, empowerment, and constructive use of time) can help serve as a protective buffer for high-risk youth. Occupational therapy practitioners working with high-risk youth populations should focus intervention on developing protective factors and developmental assets in the schools, families, and communities as a crucial aspect of prevention. This focus can potentially build resiliency in high-risk youth exposed to violence. The findings in this study were limited by the use of a self-report measure (Youth Self-Report scale). The data were also limited to at-risk youth in Chicago and therefore may not be generalizable to other populations. Due to the nature of secondary analysis, the researchers have a lack of control over data collection, and thus are unable to ensure the accuracy of the data. Further research with greater objective measures and evidence is needed to build on the findings of this study. This study lays the groundwork for a future randomized controlled trial that measures the efficacy of intervention, such as positive peer influence to high-risk youth, to determine the level of effect on the Youth Self-Report scale results.
RESEARCH OBJECTIVE(S)
List study objectives.

The purpose of the study was to understand the main effects of protective factors on emotional resilience of a diverse population of at-risk youth. It sought to determine if protective factors moderate the correlation between the youth’s exposure to violence and emotional resilience and examined the association between neighborhood-level collective efficacy and emotional resilience among youth exposed to violence.

DESIGN TYPE AND LEVEL OF EVIDENCE:
Level II: Secondary analysis study using a multilevel longitudinal design

Limitations (appropriateness of study design):
Was the study design type appropriate for the knowledge level about this topic? Circle yes or no, and if no, explain.

YES/NO There has been minimal research completed on the association between resiliency and community factors (social conditions, processes, and networks). Prior studies have investigated protective factors or resiliency separately. This study uses data to analyze multiple factors, including neighborhood level predictors, to analyze resiliency in youth exposed to violence. This exploratory design is necessary to discover and establish the concurrent variables that are related to the phenomenon. This will help to lay the groundwork for future experimental studies to determine causal relationships between the variables

SAMPLE SELECTION
How were subjects selected to participate? Please describe.

The researchers used data from the Project on Human Development in Chicago Neighborhoods, a community-based multi-level longitudinal study. Sampling was taken from 343 neighborhood clusters for an accurate representation of race/ethnicity, socioeconomic status, family structure, etc. A random sample of 6226 children and youth were selected from a random sample of 80 neighborhood clusters. From this data, the researchers arrived at their final sample of 1166 youth from 78 neighborhoods to perform their analysis.

Inclusion Criteria
NR

Exclusion Criteria
NR
SAMPLE CHARACTERISTICS

N = 1166

% Dropouts: 351 people dropped out from the analysis; tended to be African American, from single parent families, and had fewer developmental assets

#/ (%) Male: 563 (48%)

#/ (%) Female: 604 (52%)

Ethnicity: 35% African American, 47% Hispanic, 18% White and others

Disease/disability diagnosis: Youth ages 11–16 living in 78 Chicago neighborhoods

Check appropriate group:

<table>
<thead>
<tr>
<th>&lt; 20/study group</th>
<th>20–50/study group</th>
<th>51–100/study group</th>
<th>101–149/study group</th>
<th>150–200/study group</th>
</tr>
</thead>
</table>

INTERVENTION(S) AND CONTROL GROUPS
This secondary analysis study did not have any interventions or control groups. Rather, the researchers separated the 1166 youth participants into three comparison groups: unexposed, witness group, and victim group. The unexposed group included individuals who did not witness any violence in the community. The witness group included eyewitnesses to violence in the community, and the victim group included individuals who experienced at least one act of violence.

Intervention Biases: Circle yes or no and explain, if needed.
Because this study was a secondary analysis, there was no intervention or treatment provided.

Contamination
YES/NO

Co-intervention
YES/NO

Timing
YES/NO

Site
YES/NO

Use of different therapists to provide intervention
YES/NO
### MEASURES AND OUTCOMES

Name of measure, what outcome was measured, whether the measure is reliable and valid (as reported in article – yes/no/NR [not reported]), and how frequently the measure was used.

<table>
<thead>
<tr>
<th>Name of measure</th>
<th>Outcome measured</th>
<th>Reliability and validity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Self-Report and Young Adult Self-Report scales</td>
<td>Internalizing problem score during secondary analysis</td>
<td>Yes</td>
<td>3 waves</td>
</tr>
<tr>
<td>MyETV (Exposure to Violence) scale</td>
<td>Exposure to violence</td>
<td>Yes</td>
<td>3 waves</td>
</tr>
<tr>
<td>Provision of Social Relations instrument and California Healthy Kids Survey Resilience module</td>
<td>Protective factors</td>
<td>Yes</td>
<td>3 waves</td>
</tr>
</tbody>
</table>

The researchers administered a reduced 28-item version of the Youth Self-Report and Young Adult Self-Report scales to the participants at each of the three waves to calculate an internalizing problem score during the secondary analysis. This was used as the outcome tool to determine emotional resilience and includes 15 scales (e.g., anxiety/depressive symptoms, somatic symptoms, withdrawal symptoms). Exposure to violence was measured using the MyETV (Exposure to Violence) scale, and protective factors were measured using the Provision of Social Relations instrument and the California Healthy Kids Survey Resilience module. Reliability and validity of these assessments were not reported in this study.

### Measurement Biases

Were the evaluators blind to treatment status? *Circle yes or no, and if no, explain.*

<table>
<thead>
<tr>
<th>YES/NO</th>
<th>The researchers did not administer any treatment in this study.</th>
</tr>
</thead>
</table>

Recall or memory bias. *Circle yes or no, and if yes, explain.*

<table>
<thead>
<tr>
<th>YES/NO</th>
<th>Memory bias can potentially be an issue with self-report assessments. The study did not identify any measures taken to control for memory bias.</th>
</tr>
</thead>
</table>

Others (list and explain):

A potential limitation of this secondary analysis study is that the researchers essentially inherit any limitations and biases present from the original longitudinal study.

### RESULTS

List results of outcomes relevant to answering the focused question

Include statistical significance where appropriate (*p* < 0.05)

Include effect size if reported

Four main developmental assets that increased the odds of emotional resiliency significantly (*p* < .01) were protective for all youth across the three groups (unexposed, witness, and victims): Friend support, family support, adult support, and positive peers.

An increase of 1 standard deviation in positive influence increased the odds of emotional resiliency by 22% (95% confidence interval, *p* < .001). For the witness group, each SD increase in positive peers and other adult support significantly increased resiliency.

Greater friend support, positive peers, and hours in structured activities alter resiliency differently among the three groups across time. The unexposed group was found to have significantly higher levels of family support and positive peers in comparison to the other two groups.
Was this study adequately powered (large enough to show a difference)? Circle yes or no, and if no, explain.

**YES/NO**

Were appropriate analytic methods used? Circle yes or no, and if no, explain.

**YES/NO**

Were statistics appropriately reported (in written or table format)? Circle yes or no, and if no, explain.

**YES/NO**

**CONCLUSIONS**

State the authors’ conclusions that are applicable to answering the evidence-based question.

This study found that supportive relationships were a strong protective factor and predictor of emotional resiliency for all youth (unexposed, witnesses, and exposed to violence) across time (all three waves). Structured activities only had a significant effect on building resiliency in the unexposed group, and did not buffer the effects for the other two groups at wave two. However, participation in structured activities is an example of an asset with multiple benefits; it reduces actual exposure to violence, reduces trauma and enhances coping, and enhances self-esteem through positive peer relations and access to meaningful opportunities such as extracurricular activities and volunteer work. Peer and community support, in addition to support from family and adult figures, become especially important protective factors as youth develop. These factors all serve to help buffer the effects of violence and other risks these youth face and help them build resiliency to overcome their environment.

This work is based on the evidence-based literature review completed by Eric Lin, OTS, and Jennifer Gardner, OTD, OTR, Faculty Advisor, Kean University.


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