The Effects of Negative Life Events on Pessimistic Future Outlook: Mediating Effects of Anxiety and Behavior

Kia Harris

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The Effects of Negative Life Events on Pessimistic Future Outlook: Mediating Effects of Anxiety and Behavior

by

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Undergraduate honors thesis under the direction of

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Submitted to the LSU Roger Hadfield Ogden Honors College in partial fulfillment of the Upper Division Honors Program.

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Louisiana State University
& Agricultural and Mechanical College
Baton Rouge, Louisiana
Abstract

Research has shown that experiencing stressful life events may lead children and adolescents to have a negative outlook on their future. However, both stressful events and a pessimistic future outlook have also been linked to anxiety and behavioral problems. The goal of this study was to investigate whether anxiety and behavioral problems had a mediating effect on the relationship between stressful life events and a pessimistic outlook toward future success. The study sample was 84 youth who were referred to a psychological clinic for an evaluation. They would be administered self-report tests measuring anxiety, future orientation, as well as stressful life events. Parent-report tests were administered measuring anxiety and behavioral problems of their child. Data analyses would test whether the correlation between stressful life events and a pessimistic outlook towards the future was reduced when accounting for anxiety and behavior problems. Results did not find stressful events and future outlook to be significantly correlated, so the mediational relationship could not be tested. There was a correlation between stressful events and anxiety, and between anxiety and future outlook based on self-report but this was not seen in parent-reported measures. There was a correlation between behavioral problems and future outlook based on parent-report. Given the current study’s methodical limitations, further research is needed to test the mediational relationship, incorporating factors of resiliency and individual differences in children and adolescents.

Keywords: anxiety, behavior problems, future orientation, stress life event
Children are somewhat resilient in high stress environments and researchers have shown that the effects are not necessarily always detrimental to the child but also can lead to positive adaptation (Diener et al., 2006). However, children who experience high rates of stress can be at risk for negative outcomes. For example, some children become pessimistic about their potential for future success after suffering from stressful events (Oshri, Duprey, Kogan, Carlson, & Liu, 2018). Supporting this finding, a meta-analysis of 77 studies of children and adolescents reported that the association between stress and hope was negative but of small effect size (Yarcheski & Mahon, 2016). Other research on vulnerable youth revealed youth living in unpredictable environments, characterized by factors such as maltreatment and family instability tend to have more pessimistic outlooks than youth who do not (Dickerson, Milojevich, & Quas, 2019). In one study of African-American youth with a mean age of 15.58, the authors reported that neighborhood risk—specified as experiencing violence and daily hassles—was significantly associated with psychological outlook; specifically, neighborhood risk was positively associated with hopelessness and negatively associated with self-efficacy (Wallace, Neilands, & Sanders Phillips, 2017). Thus, research consistently supports a link between experiencing stressful events and pessimistic outlook for the future.

In addition to stressful events being related to a pessimistic outlook towards the future, stressful events have also been associated with risk for elevated levels of anxiety in children and adolescents (Chorpita & Barlow, 1998). In Najman, Hayatbakhsh, Clavarino, Bor, O’Callaghan, and Williams (2010) longitudinal study of the impact of poverty, cumulative exposure to stressors during childhood was associated with adolescent anxiety. Another stressful life event, childhood physical abuse, has also been directly associated with anxiety (Lu, Shorey, Greeley, & Temple, 2019; Rizo Martínez, Guevara Pérez, Hernández González, & Sánchez Sosa, 2018). In a
meta-analysis of 19 studies with 115,579 participants, sexual abuse and physical abuse was associated with anxiety, with combined odds ratio of 2.52 and 1.70, respectively (Lindert, von Ehrenstein, Grashow, Gal, Braehler, & Weisskopf, 2014). The coronavirus pandemic, characterized by events such as school-related problems and social isolation has also led to elevated anxiety symptoms (Hawes, Szenczy, Klein, Hajcak, & Nelson, 2021; Tang, Xiang, Cheung, & Xiang, 2021). Thus, there is strong evidence to suggest that exposure to various types of stressful life events and chronic adversities precede the onset of anxiety in children and adolescents (Allen, Rapee, & Sandberg, 2008).

However, adverse life events may be even more strongly correlated with behavior problems than anxiety (Tiet, Bird, Hoven, Moore, Wu, Wicks, Jensen, Goodman, & Cohen, 2001). Shorey, Fite, Choi, Cohen, Stuart, and Temple (2015) found that physical dating violence was a predictor of risky sexual behavior in Caucasian, African American, and Hispanic adolescents. Exposure to child sexual abuse was associated with HIV-related substance abuse (e.g. marijuana) and risky sexual behavior from adolescence to adulthood (Scheidell, Kumar, Campion, Quinn, Beharie, McGorray, & Khan, 2017). Further, children living in poverty exposed to multiple adverse childhood experiences (ACE) experienced elevated levels of behavior problems from childhood to adolescence (Choi, Wang, & Jackson, 2019; Wang, Choi, & Shin, 2020).

Thus, research has suggested that exposure to negative life events can have a number of detrimental effects on the development of a child, leading to a more pessimistic outlook towards the future, as well as increased risk for emotional and behavioral problems. It is possible that the reason negative life events leads to a negative outlook towards the future is through its effects on the child’s emotional and behavioral adjustment. In support of this, research has found that
anxiety is associated with lower levels of hope in children and adolescents (Martins, Crespo, Salvador, Santos, Carona, & Canavarro, 2018; Yeung, Ho, & Mak, 2015). In other studies, research has found that anxiety is negatively correlated with optimism (Kaiser & Malik, 2015; Patton, Tollit, Romaniuk, Spence, Sheffield, & Sawyer, 2011; Valle, Huebner, & Suldo, 2006) and positively correlated with pessimism (Sulkers, Fleer, Brinksma, Roodbol, Kamps, Tissing, & Sanderman, 2013). Furthermore, optimism has been negatively associated with substance use and antisocial behavior (Brooks, Marshal, McCauley, Douaihy, & Miller, 2016; Patton et al., 2011).

Current Study

Thus, research has linked stressful events to a number of problems in development in children and adolescents, including a pessimistic outlook towards the future, anxiety, and behavior problems. Further, anxiety and behavior problems have also been linked to a more pessimistic view of the future. What has not been tested to date, but was the focus of the proposed study, is whether anxiety and/or behavior problems help to explain the relationship between stressful events and having pessimistic future thinking. Specifically, stressful events may lead to a child to be anxious and uncertain about the future, thus leading to a more pessimistic outlook for future success. Alternatively, stressful life events can lead a child to have trouble regulating their behavior, leading him or her to get in trouble at home and at school. These problems can lead a child to have a more pessimistic view of his or her potential for future success. To investigate this, we tested the following hypotheses.

Hypotheses

H1: We hypothesized that measures of stressful events would be negatively correlated with future outlook.
H2: We hypothesized that measures of stressful events would be positively correlated with anxiety and behavior problems.

H3: We hypothesized that measures of anxiety and behavior problems would be negatively correlated with future outlook.

H4: We hypothesized that measures of stressful events would no longer correlate with future outlook when controlling for anxiety and behavior problems.

METHOD

Participants

The participants in this study were 99 consecutively referred children and adolescents to the Caring Tigers Assessment Service (CTAS), a university-based outpatient and referral service. This service provides psychological evaluations for children and adolescents with behavioral, emotional, and learning problems. Although kids can be referred for several reasons, CTAS specializes in providing psychological evaluations for children with behavioral problems and these problems were the main reasons for referral. Exclusions occurred for children who met DSM-V criteria for Autism Spectrum Disorder or whose IQ fell in the range of cognitive impairment (IQ score of 70 and below), both of which may have prevented them from understanding the measures used in the study. Patients were also excluded if they were missing data for three or more study measures. After these exclusions, data for a total of 84 patients remained.

Demographic information for the study sample are detailed in Table 1. 63.1\% (n=53) of the participants were boys and 36.9\% (n=31) of the participants were girls. 68.1\% (n=49) of the participants were White, 29.2\% (n=21) of the participants were Black, and 2.8\% (n=2) of the
participants reported another race/ethnicity. Participants had an average age of 9.97 (SD=2.66). As measured by the WISC-5, participants had an average IQ of 93.96 (SD=11.21).

Measures

Anxiety and Behavior Problems. The Behavior Assessment System for Children, Third Edition (BASC-3-PR, BASC-3-SR, Reynolds & Kamphaus, 2019) is a measure of the behavior and emotions in youth from preschool ages to late adolescent years. The measure can be administered to parents and children. The anxiety and aggression subscales of the BASC-3 Parent Report and the anxiety subscale of the BASC-3 Self Report were used in this experiment. The test was developed to be administered in both school and clinical settings and has been administered on samples representative of the United States population of children and young adults (Reynolds & Kamphaus, 2019). The items on the BASC-3 are rated on a 4-point Likert scale answer choice (Never = 0, Sometimes = 1, Often = 2, Always. = 3). Reliability coefficients for children and adolescents have been excellent (α = .93 and α =.94, respectively), in samples of clinically referred and community children ages 4 to 18. In the current study, the reliability coefficient for the anxiety subscale of the parent rating form was α =.99. The aggression subscale of the parent rating form also showed excellent internal consistency, Cronbach’s α =.99. The self-reported anxiety subscale showed excellent internal consistency, ranging from α =.98 to α =.99 in children and adolescents.

Stressful Life Events Measures. Two self-report measures were used to measure participants’ exposure to traumatic events. The first, Stressful Urban Life Events Scale (SLE), (Centers for Disease Control and Prevention [CDC], 2010) contains 15 stressful life event items (i.e., During the last year, did a family member die?), to be answered with yes or no that are totaled for a composite score. The measure has five subscales: hassles, life transitions,
circumscribed events, violence, and school problems. Higher scores in each of the subscales indicate greater exposure to or experience with that type of stressor during the past year. Previous studies have used this measure to assess stressors in a child’s life. Reliability has been reported to be $\alpha = .67$ in experiments conducted on youth between the ages of 4 and 18 (Ferguson & Olson, 2014; Pryor-Brown & Cowen, 1989). In the present study, scores showed slightly lower internal consistency ($\alpha = .60$).

The second self-report measure of exposure to traumatic events is the *Children’s Exposure to Community Violence (also known as Things I Have Seen and Heard, THIS)* (CDC, 2010), which is an 11-item questionnaire with a 4-point Likert scale range from 0 (Never) to 4 (Many times) developed by Richters and Martinez (1993). This questionnaire measures the frequency of one’s exposure to crime and violence in the community and at home, (i.e. knife attacks, hearing gunshots, etc.). Scoring is calculated through summing the number of events for which each participant was exposed. The higher the summed score computed, the more exposed that individual was to violence. This test was previously administered on participants between the ages of 9 and 24 and was shown to be correlated with other measures of exposure to and witnessing of violence. (Selner-O’Hagan, Kindlon, Buka, Raudenbush, & Earls, 1998). The measure was also reported to have had a high internal consistency in this sample ($\alpha = .93$, Selner-O’Hagan et al., 1998). To correspond with Boxer et al.’s (2010) study using this questionnaire ($\alpha= .86$), only the seven items that specifically assess exposure to violence and not crime more generally (e.g., I have seen gangs in my neighborhood) were used in the current study. The internal consistency for these items in the present study was acceptable ($\alpha = .77$).

*Perceptions of Opportunity Scale.* The Perceptions of Opportunities scale (adapted from Menard & Elliott, 1996) was used at baseline to measure the degree to which an individual
believes that he or she can do well later in life in several prosocial domains. Specifically, items assessed expectations and aspirations for success in educational, career, family, and legal domains. The expectations scale was used in the current study and assesses participant’s perceptions of their chances to achieve goals in each domain (e.g. “How likely are you to graduate from college?”) on a 5-point Likert scale ranging from 1 (Poor) to 5 (Excellent).

Internal consistency for the expectations subscale was high in the original sample at baseline (Cronbach’s $\alpha = 0.90$). In the current study, internal consistency was good in the current sample ($\alpha = 0.82$).

**Procedures**

The Louisiana State University Institutional Review Board approved the use of the clinic data for research purposes. A parent or guardian accompanied all participants to the evaluation. A consent/assent procedure was used, in which the parental/guardian gave consent for the clinical evaluation and then the parent gave consent and the child assent to have the information collected used in research. They were explicitly informed that, whether or not they give their permission for use of information in research, it would not change the services they received in any way.

All data were collected during an all-day evaluation. Measures were collected in a standardized order for all participants. The BASC-3 PR was administered to the parent. The participants were asked to fill out the BASC-3-SRP, both of the measures of stressful life events (*Children’s Exposure to Community Violence* and *Stressful Urban Life Events Scale*), and the *Perceptions of Opportunity* scale.

**RESULTS**

**Descriptive Information**
Participants had an average Stressful Urban Life Events Scale (SLE) score of 4.45 (SD=2.56), an average Children’s Exposure to Community Violence (THIS) score of 6.18 (SD=5.28), and an average future outlook score of 0.73 (SD=0.15). Patients had an average BASC Anxiety parent-report T-score of 54.16 (SD=11.23), an average BASC Aggression parent-report T-score of 56.77 (SD=13.88), and an average BASC Anxiety child-report T-score of 52.61 (SD=12.56). The distribution of the main study variables is provided in Table 1.

**Test of Study Hypotheses**

Hypothesis one predicted that the measures of stressful events would be negatively correlated with the measure future outlook. This was tested by Pearson correlation coefficients that are provided in Table 2. Contrary to our hypothesis, neither measure of stressful events, the SLE or THIS, was significantly correlated with the measure of future outlook at the $p < .05$ level.

Hypothesis two predicted that the measures of stressful events would be positively correlated with the measures of anxiety and behavior problems. This was tested by Pearson correlation coefficients that are provided in Table 2. Our hypothesis was partially supported, as child-reported anxiety was positively correlated with both measures of stressful events (for SLE, $r=.46$, $p<.01$; for THIS $r=.27$, $p<.05$). However, a significant correlation was not found for measures of parent-reported anxiety or aggression.

Hypothesis three predicted that the measures of anxiety and behavior problems would be negatively correlated with the measure of future outlook. This was tested by Pearson correlation coefficients that are provided in Table 2. Our hypothesis was partially supported, as child-reported anxiety was negatively correlated with the future outlook ($r=-.29$, $p<.05$). However, a significant correlation was not found for parent-reported anxiety. Parent-reported aggression was negatively correlated with future outlook ($r=-.25$, $p<.05$).
Hypothesis four predicted that the measures of stressful life events and the measure of future outlook would no longer be correlated after controlling for the measures of anxiety and behavior problems. Since there was no initial significant correlation between the measures of stressful life events and future outlook, this hypothesis could not be tested. In a partial correlation controlling for parent- and child-reported anxiety and aggression, no significant relationships were found between stressful life events and future outlook (Table 3).

DISCUSSION

The current study examined if anxiety and behavior problems mediate the relationship between stressful events and pessimistic future outlook in youth. However, the results did not support the hypothesized relationship between stressful events and a pessimistic future outlook, which may be expected based on mixed findings from previous studies (Diener et al., 2006; Wallace, Neilands, & Sanders Phillips, 2017). While previous findings indicate that stressful events are positively associated with hopelessness in samples of children and adolescents (Wallace, Neilands, & Sanders Phillips, 2017), other findings indicate that some children may adapt to the stressful events without experiencing problems in adjustment (Diener et al., 2006; Oshri, Duprey, Kogan, Carlson, & Liu, 2018). Thus, the current study participants, who were all brought to receive psychological services by a parent, may be more resilient to stressors in their environments than would be children who are not provided services.

Consistent with the hypothesis, stressful events were positively linked with child-reported anxiety; however, parent-reported anxiety was not significantly correlated with each measure. This finding may be a result of reporter bias, as previous research supports that some anxious children might have a cognitive or interpretation bias and perceive more events as more stressful or negative (Asbrand, Schmitz, Krämer, Nitschke, Heinrichs, & Tuschen-Caffier, 2019; Weeks,
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Coplan, & Ooi, 2017). Inconsistent with the hypothesis was that both measures of stressful events were uncorrelated with conduct problems. Much of the previous research was conducted with adolescents (Cui, Oshri, Liu, Smith, & Kogan, 2020). Due to the large age range of the participants (6-15), we may not have been able to find the association due to the large number of younger children in the sample.

Finally, another finding consistent with the hypothesis was anxiety and aggression being negatively correlated with future outlook. These findings were consistent with Martins, Crespo, Salvador, Santos, Carona, & Canavarro (2018) study that found negative associations between anxiety and hope, and previous research indicating negative relationships between future orientation and behavioral problems (Alm, & Låftman, 2016; Cui, Oshri, Liu, Smith, & Kogan, 2020). However, contrary to the hypothesis, parent-reported anxiety was not found to be linked to future outlook. As mentioned above, this may be a result of reporter bias.

It is important to note several limitations in the present study. First, majority of the participants were White (68.1%), possibly limiting generalization of the findings to youth from other racial and ethical backgrounds. While the sample is fairly representative of the racial and ethnic composition of the Baton Rouge metropolitan area, the fact that most families were White means that caution is needed when making conclusions about other racial and ethnic groups. Another factor that must be considered in determining to whom the findings might generalize is that the participants were a clinical sample. Even though the average score on the measure of emotional and behavior problems was not in range that would indicate a clinical level of severity range, they were still higher than would be found in a community sample. Second, the study did not use a longitudinal design, which made it difficult to test whether the variables predicted each other. There is some support of different developmental trajectories of future outlook depending
on changing levels of exposure to risks and protective factors throughout adolescence (Oshri, Duprey, Kogan, Carlson, & Liu, 2018). Current study measures were taken once by each participant and it is possible that stressful events may lead to more pessimistic views of the future over time. Considering the participants were referred to a mental health clinic, parental support of seeking treatment may lead to different outcomes for youth compared to youths with parents who cannot afford treatment. Third, the sample size of the current study was relatively small compared to other studies, possibly reducing the statistical power to find significant correlations. Finally, there were no parent-reports of stressful events. Some of the younger participants may have difficulty reporting on the stressful events in their environment, thus limiting the reported number of stressful events experienced.

In this study, stressful events were found to be related to increased anxiety. Further, anxiety and behavior problems were related to a more pessimistic future outlook. These findings are consistent with previous research and indicates that it is critical to implement effective treatments for treating anxiety and behavior problems in children and adolescents because it can have a negative influence on their expectations for future success. Based on the study limitations, future studies should use a larger, more ethnically diverse sample of youth and a longitudinal design. Setting a minimum age limit of 10 years old may lead to better interpretations of future outlook. Considering the different findings using parent- or child-reported measures, it is important that each measure for each component, aside from future outlook, include both types of report to better access each relationship. For example, some research uses youth-reported measures of behavior problems that were not used in this study. Similarly, a better test of the mediational relationship of the current study may be possible using a longitudinal design. Thus, providing more measures tested over a period of time may be beneficial to determining
converging and diverging future outlook trajectories amongst youth. This could help identify primary trajectories for the majority of youth, supporting intervention programs targeting multiple environmental factors leading to pessimistic future outlook in youth.
REFERENCES


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Tang, S., Xiang, M., Cheung, T., & Xiang, Y.-T. (2021). Mental health and its correlates among


Weeks, M., Coplan, R. J., & Ooi, L. L. (2017). Cognitive biases among early adolescents with


Table 1.  
*Demographics of study participants (n=84)*

<table>
<thead>
<tr>
<th></th>
<th>N*(%†)</th>
<th>M(SD)</th>
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<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53(63.1)</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>31(36.9)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>49(68.1)</td>
<td>-</td>
</tr>
<tr>
<td>Black</td>
<td>21(29.2)</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>2(2.8)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td>9.97(2.66)</td>
</tr>
<tr>
<td><strong>FSIQ</strong></td>
<td></td>
<td>93.96(11.21)</td>
</tr>
<tr>
<td><strong>BASC Anxiety T-score (parent report)</strong></td>
<td>-</td>
<td>54.16(11.23)</td>
</tr>
<tr>
<td><strong>BASC Aggression T-score (parent report)</strong></td>
<td>-</td>
<td>56.77(13.88)</td>
</tr>
<tr>
<td><strong>BASC Anxiety T-score (child report)</strong></td>
<td>-</td>
<td>52.61(12.56)</td>
</tr>
<tr>
<td><strong>Stressful Urban Life Events Scale</strong></td>
<td>-</td>
<td>4.45(2.56)</td>
</tr>
<tr>
<td><strong>Childhood Exposure to Community Violence</strong></td>
<td>-</td>
<td>6.18(5.28)</td>
</tr>
<tr>
<td><strong>Perceptions of Opportunity Scale</strong></td>
<td>-</td>
<td>.73(.15)</td>
</tr>
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</table>

*Numbers do not add to sample size due to missing values*  
†Valid percentages are reported
### Table 2.
*Correlations between study variables*

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<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>1. BASC Anxiety T-score (child report)</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. BASC Anxiety T-score (parent report)</td>
<td>.43**</td>
<td>-</td>
<td></td>
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<tr>
<td>3. BASC Aggression T-score (parent report)</td>
<td>.05</td>
<td>.18</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Stressful Urban Life Events Scale</td>
<td>.46**</td>
<td>.09</td>
<td>.08</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Children’s Exposure to Community Violence</td>
<td>.27*</td>
<td>.08</td>
<td>.03</td>
<td>.42**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6. Perceptions of Opportunity Scale</td>
<td>-.29*</td>
<td>-.03</td>
<td>-.25*</td>
<td>-.09</td>
<td>-.01</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.01

### Table 3.
*Partial correlations controlled for parent- and child-reported symptoms*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stressful Urban Life Events Scale</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2. Children’s Exposure to Community Violence</td>
<td>.41</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Perceptions of Opportunity Scale</td>
<td>-.12</td>
<td>.00</td>
<td>-</td>
</tr>
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