Minority youth in low-income, urban environments experience a variety of stressors that are largely context driven including violence exposure, family instability, and economic difficulties, as well as stressors that are common across socioeconomically diverse contexts (e.g., conflicts with peers; see Kliwer et al., 2012). These stressors are associated with adverse academic and mental health outcomes including depressive symptoms (e.g., Shukla & Wiesner, 2015).

Past research has demonstrated that how youth respond to stress is associated with depressive symptoms (e.g., Tompkins et al., 2011). Rumination is a response that is associated with depressive symptoms and can increase the impact of stress on depressive symptoms (Burwell & Shirk, 2007; Kraaij et al., 2003). On the other hand, mindfulness is a response that involves purposefully non-judgmental awareness and acceptance of the present moment (Kabat-Zinn, 1994). It can reduce rumination (Deyo et al., 2009) and is associated with a decrease in depressive symptoms (e.g., Shukla & Wiesner, 2015). Rumination is a response to stress is associated with depressive symptoms (e.g., Shukla & Wiesner, 2015).

There was a significant moderating effect of rumination on the association between peer stress and depressive symptoms, B = 0.07, t(88) = 2.27, p = .025; see Figure 1. The association was stronger for those with more rumination and significant for those above +0.73 SD on rumination.

There was a significant moderating effect of mindfulness on the association between rumination and depressive symptoms, B = −0.21, t(88) = −2.48, p = .015; see Figure 2. The association was weaker for those with more mindfulness and non-significant for those above −0.93 SD on mindfulness.

Rumination and mindfulness did not moderate the associations between other stressors and depressive symptoms.

### Results

<table>
<thead>
<tr>
<th>Table 1. Bivariate Correlations</th>
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<tr>
<td><strong>DEP</strong></td>
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<tr>
<td><strong>Depressive Symptoms (CESD)</strong></td>
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<tr>
<td><strong>Rumination (CRSQ)</strong></td>
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<td><strong>MINDfulness (CAMM)</strong></td>
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<td><strong>Peer Stress (RSQ)</strong></td>
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<td><strong>VIOlence Exposure (SLE)</strong></td>
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<td><strong>FAMily Stress (SLE)</strong></td>
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</table>

Note. N = 92, *p < .05, **p < .01, ***p < .001. There was a significant moderating effect of rumination on the association between peer stress and depressive symptoms, B = 0.07, t(88) = 2.27, p = .025; see Figure 1. The association was stronger for those with more rumination and significant for those above +0.73 SD on rumination.

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Rumination and mindfulness did not moderate the associations between other stressors and depressive symptoms.

### Discussion

Among over-age, under-credited urban minority youth, we found peer stress, but not community violence exposure or family stress, was associated with depressive symptoms. This is in contrast to some past findings of associations between community violence exposure and depression (e.g., Slapen et al., 2012) but consistent with other non-significant findings (e.g., Murg & Windle, 2010).

Interestingly, the more cross-contextual stressor of peer stress, and not the more context-specific specific stressors, had a significant association. However, the nature of peer stress may differ across contexts, and this finding may be specific to depressive symptoms. It will be important to examine associations with other mental health outcomes, for example anxiety, behavioral problems, and anger, in future research.

Consistent with findings in predominately middle class, Caucasian samples (e.g., Cox et al., 2012), we found that urban, minority youth who reported rumination have a stronger positive association between peer stress and depressive symptoms. This suggests that other findings regarding rumination may be generalizable to the urban, minority, at-risk population.

Mindfulness was a protective factor; those with more mindfulness had a weaker association with depressive symptoms. However, the nature of peer stress may differ across contexts, and this finding may be specific to depressive symptoms. It will be important to examine associations with other mental health outcomes, for example anxiety, behavioral problems, and anger, in future research.

Consistent with findings in predominately middle class, Caucasian samples (e.g., Cox et al., 2012), we found that urban, minority youth who reported rumination have a stronger positive association between peer stress and depressive symptoms. This suggests that other findings regarding rumination may be generalizable to the urban, minority, at-risk population.

One limitation was the SLE only allowed respondents to indicate if an event occurred and not the impact of the event on them. A measure that includes the subjective experience of life events may result in more significant associations.

### References and Acknowledgments

We would like to acknowledge the contributions to this study provided by the Holistic Life Foundation; Baltimore City Public School System (BCPSS) administrators, staff, and students; Jacinda Datorio; Sara Tafeen; Jacob Schmitt; and Eleon Rizakos.

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**Intervention**

The primary aim of the current study was to examine types of stress, stress responses, and depressive symptoms in a low-income, urban minority youth sample. Specifically, we targeted high school students who were over-age and under-credited (OA-UC; i.e., have fewer types of stress, stress responses, and depressive symptoms to minority youth in low-income, urban environments.

**Study Aims**

- **Types of stress** - the associations between stressors from multiple domains (violence exposure, family, and peer stress) and depressive symptoms.
- **Moderating effects of stress responses** (rumination and mindfulness) on the associations between stressors and depressive symptoms.
- **Moderating effects of mindfulness** on the association between rumination and depressive symptoms.

**Method**

- **Participants**:
  - 92 high school students from urban schools
  - All were over-age and under-credited
  - Age: 15 – 20 years (M = 17.88, SD = 0.91)
  - Ethnicity: 93.5% African-American
  - Gender: 53% male

- **Procedure**:
  - Baseline data from a mindfulness intervention study at four Baltimore City high schools.
  - Individually at school, students completed computer-based surveys that were displayed on screen and recorded to accommodate possible variability in literacy levels.

- **Measures**:
  - Center for Epidemiological Studies Depression (CESD; 20 items; α = .829)
  - Children’s Response Styles Questionnaire (CRSQ)
  - Brooding subscale (14 items; α = .917)
  - Child and Adolescent Mindfulness Measure (CAMM; 10 items; α = .871)
  - Stressful Life Events (SLE) Scale
  - Peer subscale (7 items; e.g., best friend moved away)
  - Violence Exposure subscale (8 items; e.g., seen someone beaten, shot, or really hurt by someone)
  - Family subscale (17 items; e.g., parental separation or divorce, or one of parents left the family)
  - Responses to Stress Questionnaire (RSQ)
  - Peer Stress scale (5 items; α = .795; e.g., teased by other students)

**Results**

- Depressive symptoms were associated positively with peer stress and rumination and negatively with mindfulness. Symptoms were not associated with other stressors or family stressors (see Table 1).