

The Moderating Role of Positive Events on the Relationship Between Life Stress and Symptoms of Depression

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Introduction

Life stressors have a significant role across the lifespan. High levels of stressful life events have been associated with negative consequences such as depression (Hammen, 2005; Kendler et al., 1999; Kessler, 1997), health problems (Ackerman et al., 2002; Lampe et al., 1998; Lesserman, 1998), and overall psychological distress (Leong & Vaux, 1991; Sarason, Johnson, & Siegel, 1978). In addition to the stress resulting from negative life events as a predictor of depression, many studies have examined the role that chronic life stress in general plays in predicting onset of depression (see Kessler, 1997 for a review). Rather than focus on the occurrence of events that may or may not be perceived as stressful, studies have directly focused on levels of perceived stress, regardless of their source.

Although there has been a strong association demonstrated between life stress and onset of depression, it is estimated that only one in five people who experience severely stressful life events develop depression (Kendler et al., 2003). This suggests that other factors may disrupt the relationship between life stress and onset of depression. Recently, much emphasis has been placed on finding such factors that protect from the negative effects of stressful life events. There has been limited, but promising, support for positive events as a protective factor from stressful life events (e.g. Shahar & Priel, 2002; Needles & Abramson, 1990) and as a direct predictor of increased life satisfaction (Reich & Zatura, 1981).

The purpose of the present study is to test the hypothesis that positive life events moderate the relationship between stress and symptoms of depression.

Method

Participants and Procedure

The sample included 271 college students (76% female) recruited from a large, ethnically diverse university. Participants completed the measures online as part of a larger study in exchange for extra course credit.

Measures

Stress and depression were measured using the stress and depression subscales from the Depression Anxiety and Stress Scales (DASS; Lovibond and Lovibond, 1995), respectively. Positive events were measured using Frequency scores from the Life Events Scale (LES; Saxe and Abramson, 1987) for a six-week period.

Results

This study used an extreme groups design consisting of participants with scores two standard deviations above or below the mean on the DASS Stress Scale, based on the recommendations of McClelland & Judd (1993). Table 1 displays the means, standard deviations, and intercorrelations of study variables for the full sample.

Table 1. Means, standard deviations, and intercorrelations of all study variables

	Positive Events	Stress	Depression
1. LES Positive Events	-		
2. DASS Stress	.126	-	
3. DASS Depression	.044	.735***	-
Mean	9.11	15.38	11.12
SD	3.39	9.48	9.32

Note LES= Life Events Scale; DASS Stress and Depression Symptoms = Stress and Depression subscales from the Depression, Anxiety, and Stress Scales. *** = $p < .001$

Table 2 shows the results of a hierarchical regression analysis that was conducted to determine the role positive life events played in moderating the relationship between stress and negative life events. All variables in the interaction term were standardized according to the recommendations of Aiken and West (1991). DASS stress and LES positive life events were entered into step 1 and the multiplicative interaction term was entered into step 2.

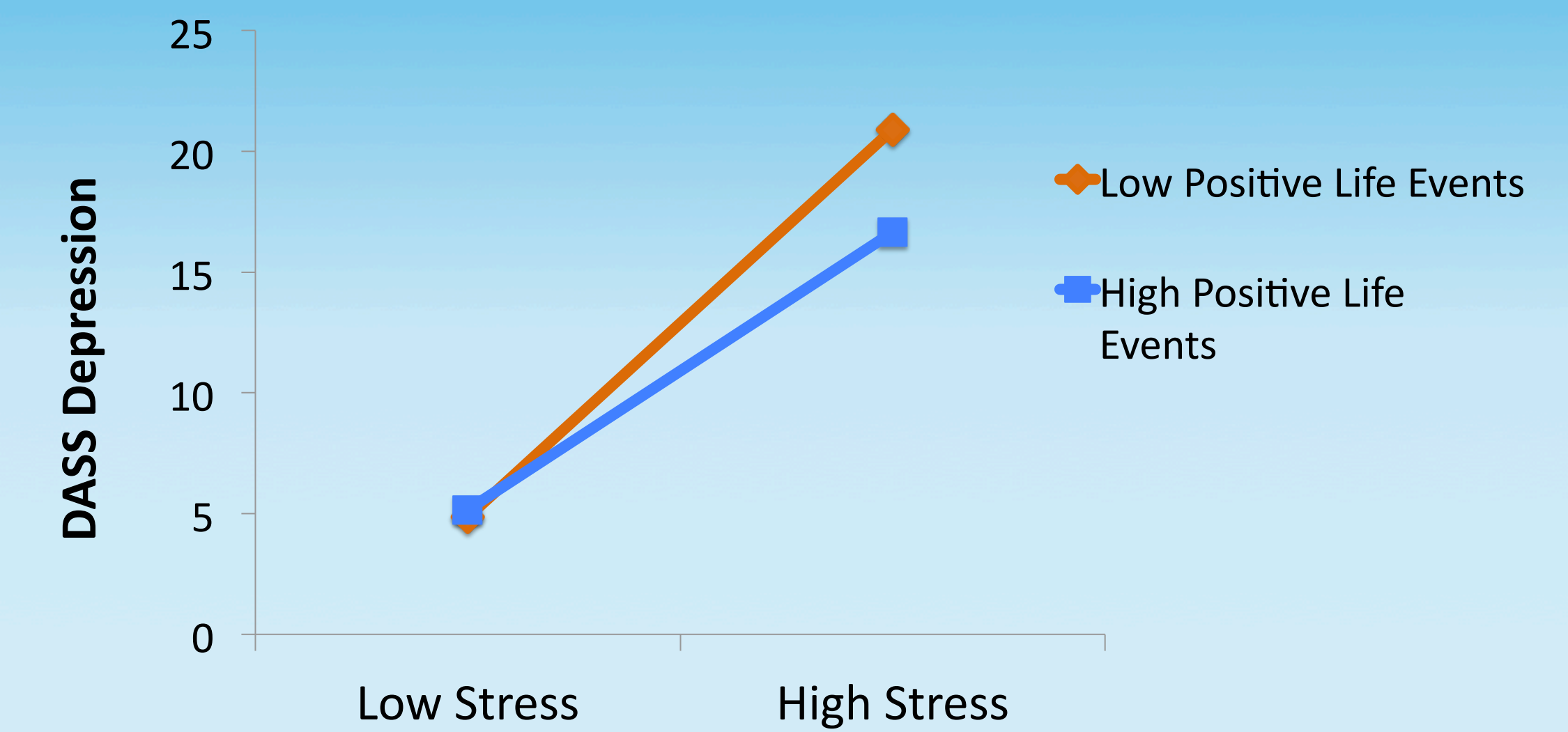
Table 2. Results of linear regression analysis

	B	SE B	t
Step 1			
DASS Stress	6.890	.523	13.184***
LES Positive Life Events	-.984	.749	-1.313
Step 2			
Stress x Positive Life Events	-1.136	.408	-2.782**

Note LES= Life Events Scale; DASS Stress and Depression Symptoms = Stress and Depression subscales from the Depression, Anxiety, and Stress Scales. *** = $p < .001$

Next, we probed the pattern of the interaction according to the suggestions of Aiken and West (1991). Figure 1 shows that for those who are under high stress, individuals with high levels of positive events (1 SD above the mean) were more likely to have lower levels of depression than those with low levels of positive events (1 SD below the mean).

Figure 1. Graph of interaction plot



Discussion

As expected, we found that positive life events moderated the relationship between stress and depression. Those who had higher levels of positive life events were less likely to have higher levels of depression symptoms under conditions of high stress. This study provides further support for the protective role positive events play in the relationship between stress and symptoms of depression. These findings provide evidence that positive life events appear to reduce the impact of stress on depression symptoms. It is important to note that negative life events and their relating stress many not be the only cause of depression. Monroe and Reid (2009) discuss the notion of depression without an easily identifiable cause (i.e. "sadness without cause"). In this case, positive life events may only serve as a protective factor in depression that is caused by life stress.

Limitations

This study's most notable limitation was that it was a cross sectional study. Given that all of the data were collected in the same time period, it is impossible to determine a casual chain between life stress and outcome depression. Furthermore, people may be biased in their estimates of life stress if they are already depressed or being depressed may actually cause these events (Hammen, 1991).

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