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## The Relationship Between Resilience, Stress & PTSD

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## Introduction

- Posttraumatic stress disorder (PTSD) is characterized by intrusive thoughts or memories of the traumatic event that hinder daily life activities of individuals with a PTSD diagnosis.<sup>1</sup> Research indicates that adaptive coping strategies are associated with increased resilience after trauma.<sup>1</sup>
- Stress is defined as demanding circumstances resulting in mental tension and emotional strain. Elevated stress exposure has been found to exacerbate PTSD symptoms.<sup>2</sup>
- Resilience is known as the ability to recover back to pre-crisis status quickly and manage the situation properly.<sup>3</sup> A study has been done on medical students' ability to transition into clinicals after school and the effect of stress and resilience during that process.<sup>4</sup> Research in healthy individuals without PTSD suggests that resilience may buffer the experience of stress.
- In conclusion, previous studies have highlighted the beneficial role of resilience in stress in healthy participants. The current study proposes to examine whether resilience will moderate the association of stress exposure and PTSD symptoms.

## Aims and Hypotheses

- Aim 1: To explore the influence of resilience on the association between stress exposure and PTSD symptoms.
- Hypothesis 1.1: There will be a main affect of stress on PTSD symptoms.
- Hypothesis 1.2: Resilience will have a moderating affect on stress and PTSD

## Methods

- Eighty-one participants over the age of 18 were recruited from the University of Missouri-Saint Louis and St. Louis community.
- Participants had no history of learning disabilities, psychiatric disorders, or neurological disorders.
- Participants completed three self-report measures: Resilience (RSA)
  - The RSA is composed of 33-items that are measured on a 5-point scale. The item-total scores range from 33-165, where higher scores indicated greater resilience.<sup>6</sup>
- Stress (LSC)
  - The LSC is a 30-item self-report questionnaire that measures exposure to chronic stress and traumatic events. The stressor sub scale corresponding to the number of chronic stressors experienced was used in the current study.<sup>7</sup>
- PTSD (PCL-5)
  - The PCL-5 is a 20-item self-report questionnaire assessing symptoms of PTSD over the past month. We used total PTSD severity scores for the current study.<sup>8</sup>

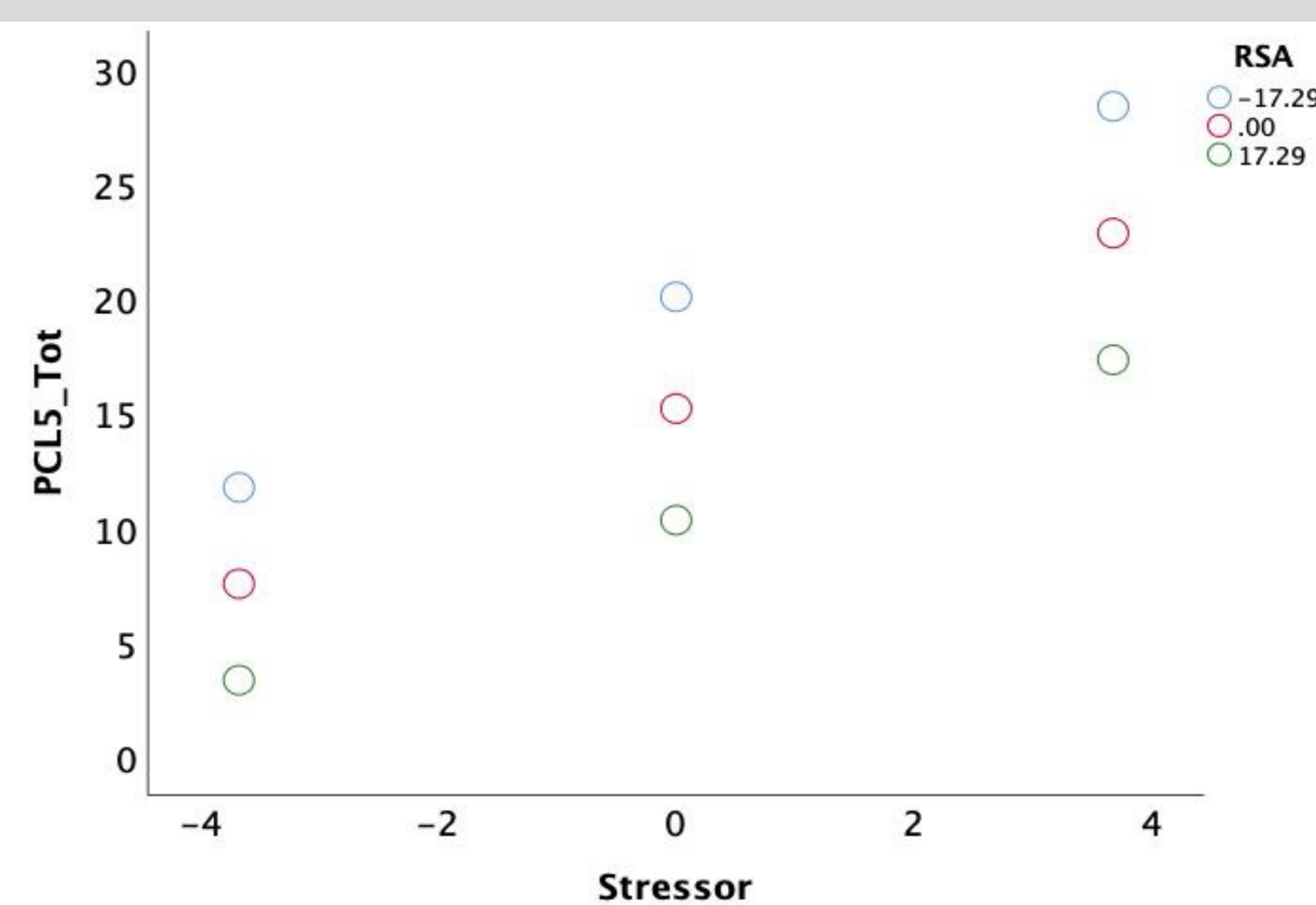
## STATISTICAL ANALYSES

- To investigate the influence of resilience on the relationship between stress and PTSD symptoms, a moderation was performed using Process in SPSS (26).

**Table 1. Descriptive Statistics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Stressors_Total_LSC	81	0	15	5.56	3.678
PCL-5_Total	81	0	62	15.23	16.285
What is your current age (in years)?	68	18	77	30.09	16.931
RSA	81	82	164	127.10	17.286
Valid N (listwise)	68				

**Figure 1. Resilience, Stress and PTSD Moderation**



## Results

- In support of hypothesis 1.1, we found that stress exposure was associated with greater PTSD symptoms ( $b = 2.08, t(77) = 5.02, p < .001$ ).
- However, hypothesis 1.2 was not supported. Specifically, resilience was not found to moderate the relationship between stress exposure and PTSD symptoms ( $B = -0.01, p = .68$ ; Figure 1).
- All assumptions for the moderation assessed and were met.

## Discussion

- Consistent with previous research, chronic stress exposure was associated with PTSD symptoms.
- However, resilience did not have a moderating effect on the relationship between stress exposure and PTSD.
- One potential explanation of the non-significant results is the idea of increased stress being determined by the number of life events. One potential explanation for the null results is perceived control over the stressful events, which has been shown to affect resilience<sup>9</sup>.
- One potential limitation is the sample size being too small. This may have affected the statistical power for the analyses.

## FUTURE DIRECTIONS

- Future studies may examine the influence of medications on PTSD, chronic stress, and resilience.
- Results from animal models of PTSD-highlight that drugs such as anxiolytics (i.e., alprazolam) may be detrimental to future exposures of stress and may increase the likelihood of developing disorders such as PTSD.<sup>10</sup>

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