

Stress Resistance as a Potential Mediator for the Effect of Self-Efficacy on Depression

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Introduction

A sample of undergraduate students found that only 32% of the people were resistant to stress, while 33% showed partial resistance to stress. Approximately 35% of the people showed no sign of resistance to stress (Kocowski, 1971).

Stress resistant means to be able to perform efficiently under complex and high-activation tasks or situations (Kocowski, 1971).

Self-efficacy is an individual's belief and confidence regarding their abilities to achieve a goal (Bandura, 1977).

Depression here refers to dysfunction in self-monitoring, self-reinforcement, or self-evaluation.

When subjects consider themselves not capable of doing a task, they are more likely to experience fear and give up (Bandura, 1982). On the other hand, when people see themselves capable of handling a situation, they behave more assuredly and show better coping and persistence in the face of an obstacle (Bandura, 1997).

Emotional and behavioral reactions such as anxiety and stress to negative and unfamiliar situations are affected by self-efficacy perception (Bandura, 1982).

Among people suffering from depression, there are more non-stress-resistant people than stress-resistant people (Kocowski, 1971).

Individuals with higher self-efficacy and greater stress resistance have lower depression, but these variables have not been tested in a model together. (Ehrenberg et al., 1991; Bergeman & Deboeck, 2014).

Hypothesis

We hypothesize that self-efficacy and stress resistance are correlated. Therefore, increasing people's self-efficacy might lead to increases in their stress resistance. We also predicting stress resistance would mediate a decrease in depression.



Method

Participants: 150 freshman and sophomore undergraduate students from different majors at a state university in Tennessee, USA.

Materials and Procedure

Participants completed the study online through Qualtrics. They were randomly assigned to the experimental condition or the control condition.

Participants in the experimental condition read three articles from local news sources about their school's alumni and took a short quiz following the articles.



The hope was that reading positive stories about those who went through a similar path as them would positively affect the participants' self-efficacy, as self-efficacy might be improved if vicarious experiences come with positive consequences (Bandura, 1997).

Participants in the control condition read three articles that did not contain any success stories and took a short quiz following them.

All participants completed the following measures:

Self-efficacy scale (SES; Sherer et al., 1982) containing two subscales (general self-efficacy and social self-efficacy). Participants were asked to respond from "strongly agree" to "strongly disagree" to questions such as, "When I make plans, I am certain I can make them work," and, "It is difficult for me to make new friends."

Perceived Stress Scale (PSS; Cohen et al., 1983), measures perception of stress on a four-point scale from "never" to "very often." Participants respond to questions such as, "In the last month, how often have you felt confident about your ability to handle your personal problems?"

PHQ-9 (Kroenke et al., 2001), which measures depression by asking how frequently participants have felt depression symptoms such as, "Little interest or pleasure in doing things," from "not at all" to "nearly every day."

Results

Manipulation Check

Independent sample t-tests were conducted to compare self-efficacy between the experimental and control conditions as a manipulation check.

The results indicated that social self-efficacy increased by a slightly significant margin ($p = 0.04$).

However, the targeted variable general self-efficacy did not significantly increase ($p = 0.53$).

Since the manipulation check did not show a difference between the conditions on general self-efficacy, the manipulation was judged ineffective and remaining analyses were collapsed across condition.

Correlational Analyses

- General self-efficacy was negatively correlated with Perceived Stress ($r(165) = -.27, p < .001$) and Depression ($r(166) = -.31, p < .001$), which were positively correlated with each other ($r(148) = -.69, p < .001$).

Regression

Following the Barron and Kenny (1986) method, we tested for mediation using a linear regression and Sobel test. The results supported the role of Perceived Stress as a mediator of the association between General Self-Efficacy and Depression (p 's < .05).

Discussion

Limitations

The study was conducted online, so we did not control any noise and distraction in the participant's environment.

We counted on the participants to self-report, which has weaknesses. Participants may not be fully aware of how stressed out they are or misjudge their confidence level regarding doing different tasks.

The data being collected from a sample of college students limits the generalizability of the results and conclusions.

Future Research

We suggest investigating other methods of manipulating self-efficacy. Our manipulation presented a variety of admirable alumni, but it might have been more effective to match a particular role model with participants' goals.

An in-person setting instead of an online survey to control the confounding environmental factors is recommended.

Implications

Although our manipulation method was not entirely successful, did increase social self-efficacy. If this variable was the target, the manipulation would have been successful.

The current study's results support previous research findings regarding the negative correlation between self-efficacy and depression and the negative correlation between stress resistance and depression.

Educational settings can offer some extracurricular activities to help students improve their social self-efficacy, which can also positively affect other aspects of their lives.

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