

The Effects of Resilience on Mindfulness and Stress in Students

Stacey M. Stremic

Aneeqa Thiele

Macie Mussleman

Alexander T. Jackson, Ph.D.

Middle Tennessee State University

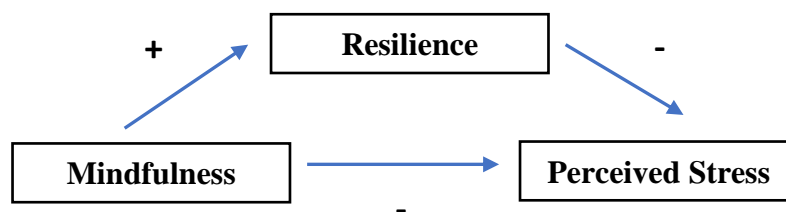
ABSTRACT

This study tested part of a theoretical model on resilience in the workplace proposed by Rees, Breen, Cusack, and Hegney (2015). We hypothesized that resilience would mediate the relationship between mindfulness and perceived stress. Using an online Qualtrics survey, we measured 127 student participants' levels of mindfulness, resilience, and perceived stress. The results supported a positive relationship between mindfulness and resilience. In addition, there was an insignificant positive relationship between resilience and perceived stress. As a result, the proposed mediation was not supported. Resilience did not mediate the relationship between mindfulness and perceived stress. Future research should test alternative measures of psychological adjustment within the model (e.g., job burnout).

The Effects of Resilience on Mindfulness and Stress in Students

Resilience has been extensively researched within the various fields of psychology, but there is significantly less literature on how resilience acts as a protective factor within the workplace or academic settings (Masten; 2001). Whether academically induced or caused by other personal factors, students typically experience an immense amount of stress during their academic career (Li and Yang, 2015). High levels of stress and extensive hardship contribute to burnout and concentration difficulties (Rees et al., 2015). Further, in the workplace, high levels of stress can lead to poor performance and retention issues. Resilience has been identified as a protective factor for individuals (Kim & Windsor, 2015). As a protective factor, resilience may mitigate the severity of the impact of stress and hardship. Psychological resilience involves the ability to persevere through adversity and hardship (Smith et al., 2008). Previous literature has demonstrated that psychological variables such as self-efficacy, mindfulness, and coping skills are contributing to key factors in resilience (Reese et al., 2015; Li and Nishikawa, 2010).

This study seeks to test part of a theoretical model of workplace resilience proposed by Rees, Breen, Cusack, and Hegney (2015) with a student sample. The purpose of the model is to lay the foundation for a unified theoretical model that can be applied across different organizations and fields of study. Additionally, the model seeks to identify intrapersonal factors that influence and overlap with resilience. Based on the proposed theoretical model by Rees et. al. (2015), we hypothesize that resilience will mediate the relationship between mindfulness and perceived stress.



Hypothesis 1a: Mindfulness is positively associated with resilience.

Hypothesis 1b: Resilience is negatively associated with perceived stress.

Hypothesis 2: Resilience mediates the relationship between mindfulness and perceived stress.

Mindfulness

Mindfulness is a present moment awareness with a nonjudgmental perspective (Rees et al., 2015). Intentional and nonreactive responses are part of the key behavioral qualities of mindfulness (Teasdale, 1999). Therefore, an individual with lower mindfulness will more likely respond reactively when emotionally triggered. Bishop et al. (2004) developed an operational definition of mindfulness that suggested two main components; (a) a present-mindedness and (b) a curiosity approach to experiences, regardless if they are negative or positive. When an individual is practicing present-mindedness, their attention is focused on the present and they are aware of that they are experiencing at the moment. In a more formal approach to a mindfulness practice, one focuses their attention on breath to create a present moment awareness in meditation. The other key component of mindfulness is a curiosity mindset. A curious orientation to one's experiences allows room for acceptance and openness. Additionally, this approach removes judgment and attachment from one's appraisal of situations, feelings, and experiences (Bishop et al., 2004).

Prakash and Hussain (2014) found that mindfulness was inversely related to perceived stress in students. In their study, they tested the relationship between dispositional mindfulness and perceived stress as mediated by emotional regulation abilities. They found evidence for mindfulness as an effective stress reducer when mediated by emotional regulation. In addition, the study found that perceived emotional regulation was negatively related to stress. Such that, higher levels of emotional regulation contributed to lower levels of stress. Previous literature suggests that interpersonal factors such as emotional awareness (Bishop et al., 2004) emotional

regulation (Prakash & Hussain, 2014), self-efficacy, and resilience contribute to lower levels of stress (Li & Nishikawa, 2010; Rees et al., 2015).

Resilience

Resilience is defined as an ability to bounce back and recover from severe hardship (Smith et al., 2008). There are some discrepancies over the definition of resilience as it can be considered a multi-dimensional construct. There are many overlapping variables with resilience within the occupational health literature, such as active coping, self-efficacy, mindfulness, optimism, and social support (Smith et al., 2008; Rees et al., 2015). As a result, Rees et al. (2015) sought to establish a model to clearly represent the overlapping intrapersonal factors and their relationship to resilience. The model examines the relationship of resilience as a mediator between certain intrapersonal factors (neuroticism, mindfulness, self-efficacy, & active coping) and psychological adjustment (stress, compassion fatigue, depression, & burnout).

Waugh et al. (2008) found that participants with high trait resilience demonstrated quicker recovery in both the affect system and cardiovascular system than participants with lower trait resilience. This study's results suggest that resilient people are able to identify safety cues and recovery from threat quickly. Research conducted by Li and Nishikawa (2010) found that trait resilience predicted active coping skills, mitigating the severity of stress. Additional research suggests that resilience is a protective factor (Kim & Windsor, 2015; Mealer et al., 2012). For example, in a study by Mealer et al. (2012), they found that resilience operated as a protective factor, where higher resilience nurses were less likely to let work stresses affect their overall functioning.

Perceived Stress

The concept of perceived stress was developed by Cohen et al. (1983). Perceived stress is how an individual appraises certain life events, feelings, or thoughts as stressful. The emphasis is on how the individual is perceiving stress in any given situation. Thus, perceived stress should be distinguished from the frequency of stressful events that an individual may encounter. Rees et al (2015) emphasized that stress exists on various levels of severity, such that stress can be temporary or lasting. Long-lasting stress can contribute to burnout on the job, lack of productivity, and turnover (Mealer et al., 2012; Rees et al., 2015). Due to the impact of stress on health and work, researchers have sought to identify key factors that cause and prevent stress. Resilience and mindfulness have both been linked to contribute to levels of stress. As a result, this study seeks to clarify the relationship between mindfulness, resilience, and perceived stress.

Method

Participants

There were 127 total participants. All participants were at least 18 years or older and were undergraduate or graduate students in a U.S. Southeastern university. The average participant's age was 23 ($SD = 4.52$). Approximately, 59% of the participants were female and about 65% of participants identified themselves Caucasian.

Materials and Procedure

Participants completed a 15-minute online survey through Qualtrics. The survey included demographic questions, the brief resilience scale (BRS), the five-facet mindfulness questionnaire (FFMQ), and the perceived stress scale (PSS).

Brief Resilience Scale. Resilience was measured using the Brief Resilience scale by Smith et al. (2008). The scale contains 6 items relating to overcoming and preserving through difficulty. Participants were asked to indicate the extent to which they agreed with each

statement. The possible answer choices were on a 5-point Likert scale, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The Cronbach's alpha for our sample was adequate ($\alpha=.76$).

The Five-Facet Mindfulness questionnaire. Baer et al. (2006) questionnaire was used to measure mindfulness. The questionnaire contains 39 items on a 5-point Likert scale ranging from 1 (*Never or Rarely true*) to 5 (*Very Often or Always True*). The FFMQ had good reliability within our sample ($\alpha=.89$).

Perceived Stress. The perceived stress scale by Cohen et al. (1983) was used to measure the perception of stress in college students. The scale consists of 10 items scored on a 5-point Likert scale that ranged from 0 (*Never*) to 4 (*Very Often*). The Cronbach's alpha for our sample demonstrated good reliability ($\alpha=.89$).

Results

Using process function on SPSS, we tested our meditation hypotheses with Preacher and Hayes' (2012) model 4. Our first hypothesis predicted that mindfulness and resilience would be positively related. When we tested the hypothesis, we found that mindfulness significantly predicted resilience ($b = 1.15, p < .01$). As a result, hypothesis 1a was supported. Participants with higher levels of resilience also demonstrated higher levels of mindfulness.

Hypothesis 1b stated that resilience would be negatively associated with stress. We found that there was a nonsignificant positive relationship between resilience and perceived stress ($b = 0.09, p < .08$). Therefore, hypothesis 1b was not supported.

Lastly, we tested the mediation and found that mindfulness did not have a significant indirect effect on perceived stress through resilience, $effect = .11$; 95% CI [-.01, .24]. Consequently, our mediation hypothesis was not supported. Specifically, resilience did not mediate the relationship between mindfulness and perceived stress.

Discussion

The purpose of this study was to test part of Rees' (2015) theoretical model of workplace resilience. We found support for a significant positive relationship between mindfulness and resilience which supports previous literature. As a result, hypothesis 1a was supported. Secondly, we did *not* find a negative relationship between resilience and perceived stress. We did find a slight, albeit nonsignificant, positive relationship between the variables. As a result, hypothesis 1b was not supported by our data.

Lastly, the mediation hypothesis was not supported. Resilience did not mediate the relationship between mindfulness and perceived stress. The nonsignificant positive relationship between resilience and perceived stress suggests that individuals high in resilience still perceive high levels of stress. As previous research indicates, high levels of resilience suggest that an individual can persevere through high levels of stress. Additional research should include other measures of psychological adjustment (e.g., burnout, depression, or anxiety) as proposed by the model. Secondly, future research should include a larger sample to test Rees et al's (2015) model. Our sample consisted of 127 college students and may not generalize to other settings or populations.

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