The Effects of Resilience on Mindfulness and Stress in Students

S. Mattie Stremic
Middle Tennessee State University
Aneeqa Thiele
Louisiana State University
Macie E. Musseleman
Middle Tennessee State University
Alexander Jackson, Ph.D.
Middle Tennessee State University

ABSTRACT
- This study tested part of a theoretical model on resilience in the workplace proposed by Rees, Broen, 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 significant 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).

INTRODUCTION
- 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, Broen, 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.
- 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).

Hypotheses:
- 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.

METHODS
- 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 on the Likert scale ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). The Cronbach’s alpha for our sample was adequate (α=.76).
- Mindfulness was measured using the Five-Facet Mindfulness Questionnaire (FFMQ). The FFMQ had good reliability within our sample (α=.89).
- Perceived Stress was measured using the Perceived Stress Scale by Cohen et al. (1983). The survey included demographic questions, the Brief Resilience Scale (BRS), the Five-facet Mindfulness Questionnaire (FFMQ), and the Perceived Stress Scale (PSS).

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.
- 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).

RESULTS
- Using process function on SPSS, we tested our mediation hypotheses with Preacher and Hayes’ (2013) 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.