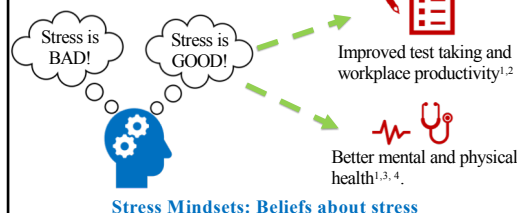


Worried Sick: The Impact of Students' Stress Mindsets on Health and Academic Performance

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Introduction



Primary Questions

1. Do students' mindsets predict their GPA? Their health?
2. Do students' mindsets vary with the type of stress they think about?
3. Are certain mindsets more predictive of GPA and health than others?

Materials and methods

Sample: undergraduate students (N=498)

Amazon's Mechanical Turk
(n=199)

Undergraduate Psychology Pool
(n=299)

Excluded for being out of college for more than two years (MTurk n=4; or lack of care in responding (Psych Pool n=1; MTurk n=1). Final sample (n=493).

More women (62.9%) and freshman (33.3%)

Method

Online survey (~20 minutes) on: health (mental and physical) and beliefs about stress (to what extent do you agree that the effects of stress are positive and should be utilized?)

	Acute	Chronic
Controllable	Presentation for which you can prepare	Daily quizzes for which you can study
Uncontrollable	Waiting for a grade	Unpredictable Socratic method class

Literature cited

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Results

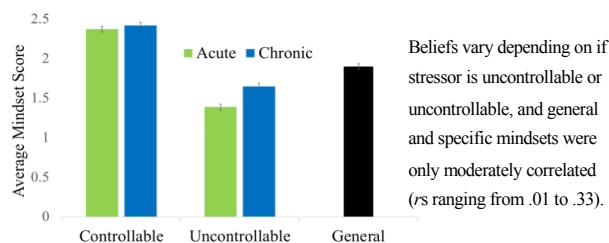
Do mindsets predict GPA?

Results vary depending on stressor type:

- Believing *general* stress is enhancing → **higher** GPA ($r = .31, p = .002$)
- Believing *acute uncontrollable* stress is enhancing → **lower** GPA ($r = -.12, p = .007$)

Stress is GOOD! → Higher GPA, when thinking about stress in general
→ Lower GPA, when thinking about waiting for a grade

Do students' mindsets vary with the type of stress?



Do mindsets predict health?

For general mindsets...

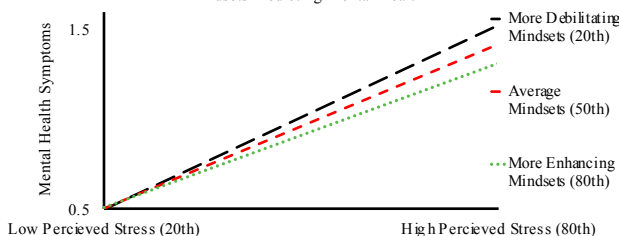
Stress is GOOD! → Better mental health ($r = .24, p < .001$)
→ Better self-reported health ($r = .18, p < .001$)
→ Fewer days health interfered with normal activity ($r = .13, p = .006$)

... Even when controlling for experienced stress?

Controlling for history of stressful life events, mindset accounts for 4.0%–7.7% of variance in health

... Does mindset influence the effects of stress on health?

Interaction Effect between Perceived Stress and Acute Uncontrollable Mindsets Predicting Mental Health



Are certain mindsets more predictive?

Health: chronic controllable most related; chronic uncontrollable least related
GPA: general and acute uncontrollable, with reverse direction

Believing controllable stressors to be enhancing seems to be most beneficial

Conclusions

Contribution to existing literature

The power of beliefs.

Findings from this study underscore the power of beliefs in influencing important outcomes, showing that general and specific beliefs about stress predict academic performance and health.

Beliefs about stress vary across stressor type.

This is the first research to examine stress mindsets as a function of stressor type. Results show that mindsets vary significantly as a function of the controllability of the stressor, and that general and specific mindsets are only modestly correlated. Future research should examine how much mindsets vary across a variety of situations, and over time.

Potential for intervention

Application for Teachers

Teachers can instruct students to think about their stress about academics as an adaptive response that can motivate proactive behavior and focus.

Targeting Existing Intervention

Current stress-mindset interventions include short videos which discuss the benefits of stress in general¹. We found that mindsets for chronic controllable stressors were more predictive of health, and chronic controllable stressors are also most pervasive in an academic setting. Future interventions might focus specifically on framing controllable stressors (e.g., exams, papers, and in-class presentations) as enhancing.

Directions for future research

How to think about uncontrollable stressors?

How can we treat stress as a signal from our body, and what is it telling us?

Hungry → Eat
Tired → Sleep
Stressed → ?

Stress might signal importance, reflecting our personal values
Stress might signal a need for self-care

Non-academic stress-mindsets

How do mindsets vary across non-academic stressors? Does controllability relate to mindsets in the same way outside of the academic domain?

Reliability of 3-item measure

This study used a shortened version of the Stress-Mindset-Scale with decreased reliability for general mindsets ($\alpha = .69$). Future work should continue to use the 8-item scale ($\alpha = .80$).

Acknowledgments

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