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Longitudinal Changes in Psychological Resilience and Wellness During Clinical Clerkship

Moshe Feldman

Virginia Commonwealth University

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Longitudinal changes in psychological resilience and wellness during clinical clerkships

Moshe Feldman PhD, Michael Ryan MD, Nicole Deoirio MD

Virginia Commonwealth University School of Medicine, Richmond, VA





CLERKSHIP YEAR

- Exposure to stressors such as experiencing patient death, trauma, personal mistreatment, and ambiguous learning environments to navigate (Haglund 2009)
- Research is mixed on the effects of clerkship on burnout (Cortez 2019)
- Effects of burnout on performance is mixed.
- Medical student perceptions of the learning environment (MSLES) become worse after M3 year (Dunham 2017).

RESILIENCE

the ability of systems to mount a robust response to *unforeseen*, *unpredicted*, and *unexpected* demands and to resume normal operations. *Nemeth et al., 2009*



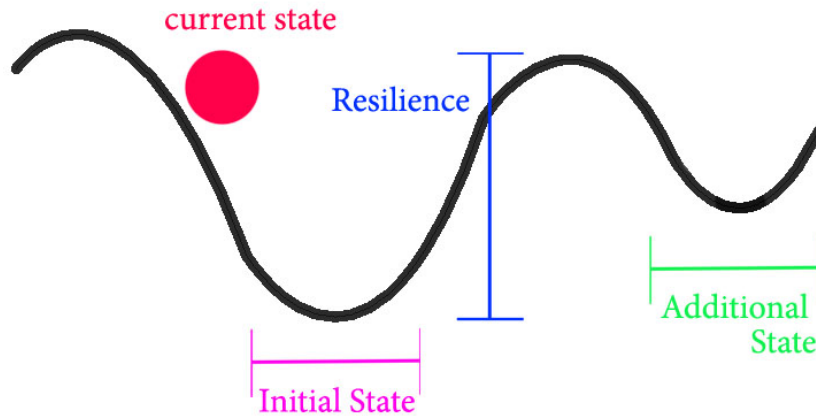
4 Components of Resilient Systems

Learn from past negative and *positive* experiences

Monitor dynamic system changes.

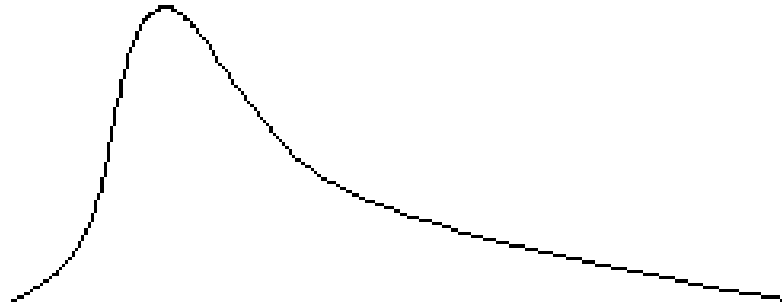
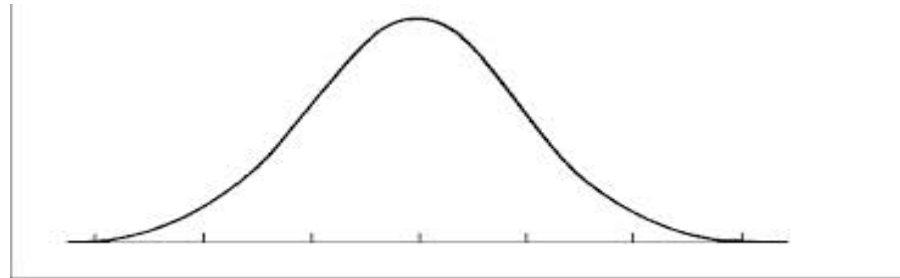
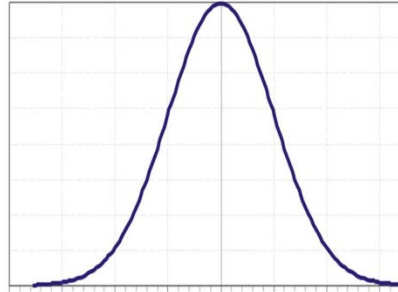
Anticipate potential threats and *opportunities*.

Adapt effectively to changing demands and recover to normal operations.



RESILIENCE

- Limited response, with *rapid* recovery (e.g. receiving negative formal feedback)
- Matched response with *protracted* recovery (e.g. poor step II practice quiz)
- Different demand from usual with *extended* recovery (e.g. adapting to EPA format)

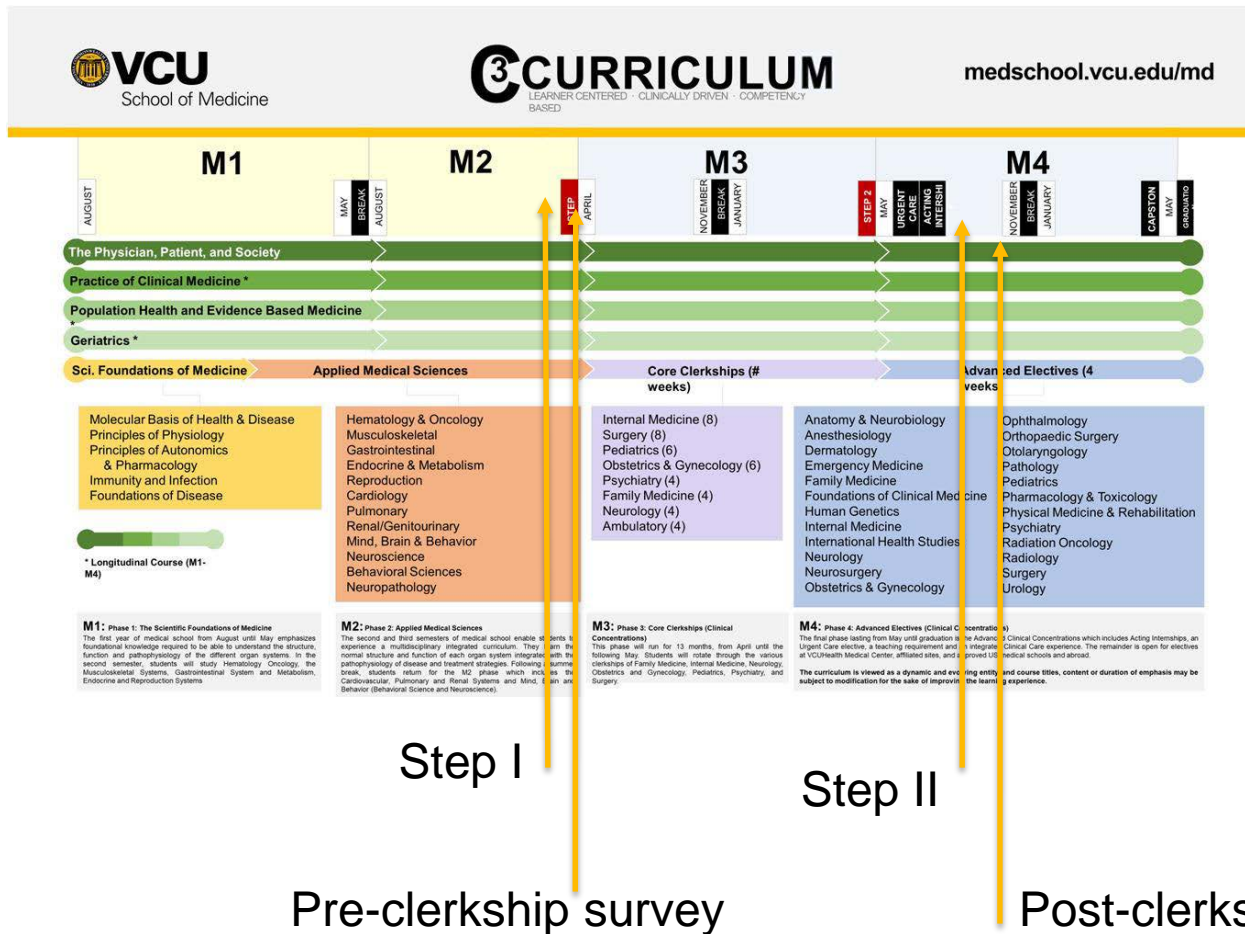


CURRENT STUDY

- *Does individual resilience change during clerkship year?*
- *Does wellness change at the end of clerkship year compared to when beginning clerkship?*
- *What is the relationship between individual resiliency and wellness?*

METHODS

- Pre-post design
- Surveys administered at M3 orientation before beginning clerkship and after completing clerkship at M4 orientation for a single cohort.



MEASURES

Brief Resilience Scale

- 6 items; (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree)

“It does not take me long to recover from a stressful event”

WHO Well-Being Index

- 5 items; (1=at no time, 2=less than half the time, 3=more than half the time, 4=most of the time, 5=all of the time)

“Over the past 2 weeks, I woke up feeling fresh and rested?”

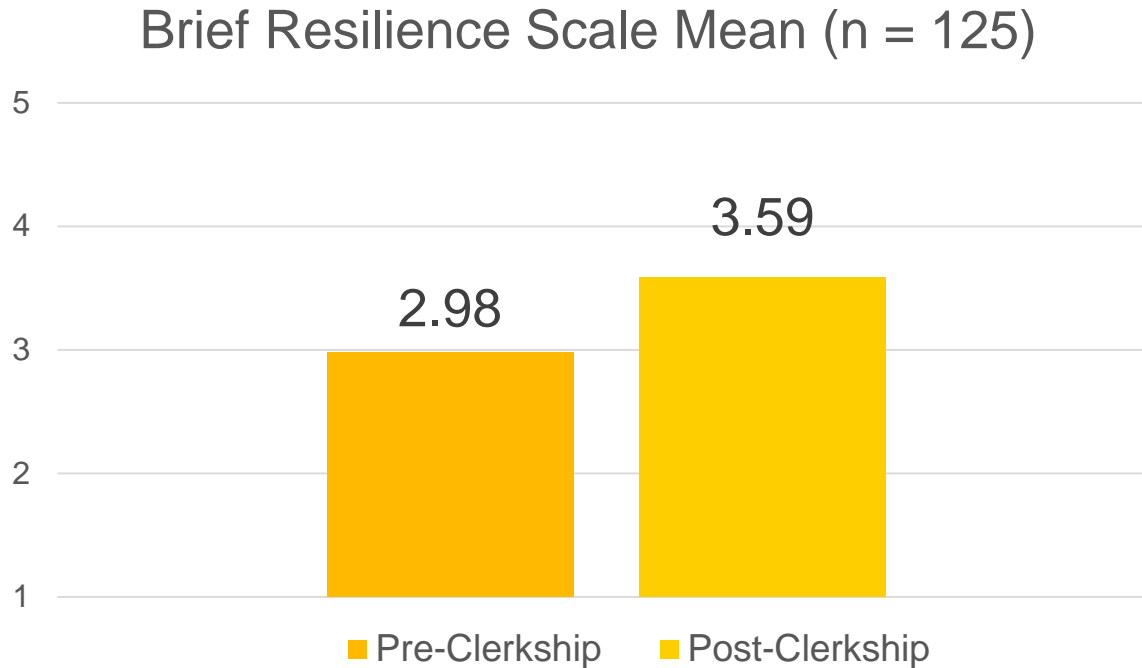
Perceived Stress Scale

- 10 items; (0=never, 1=almost never, 2=sometimes, 3=fairly often, 4=very often)

“In the last month, how often have you felt nervous and stressed?”

RESULTS

RQ: Does resilience change during clerkship?

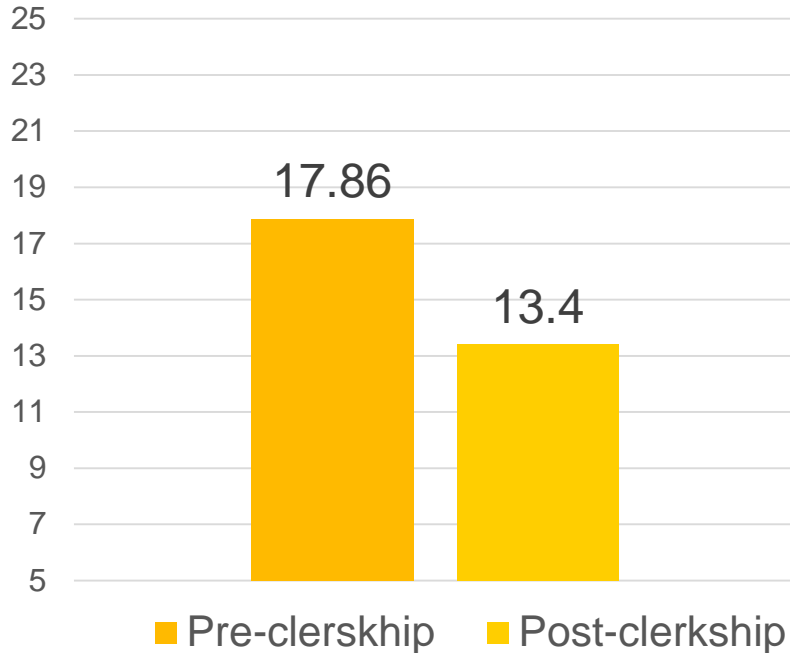


- $t = 9.95, p < .01$
- *Cohen's d* = 0.88; medium effect size

Results

RQ: Does wellness change during clerkship?

WHO Well-Being Mean
(out of 25)



- $t = -10.33, p < .01$
- *Cohen's d* = 0.89; medium effect size

Perceived Stress Mean
(out of 24)

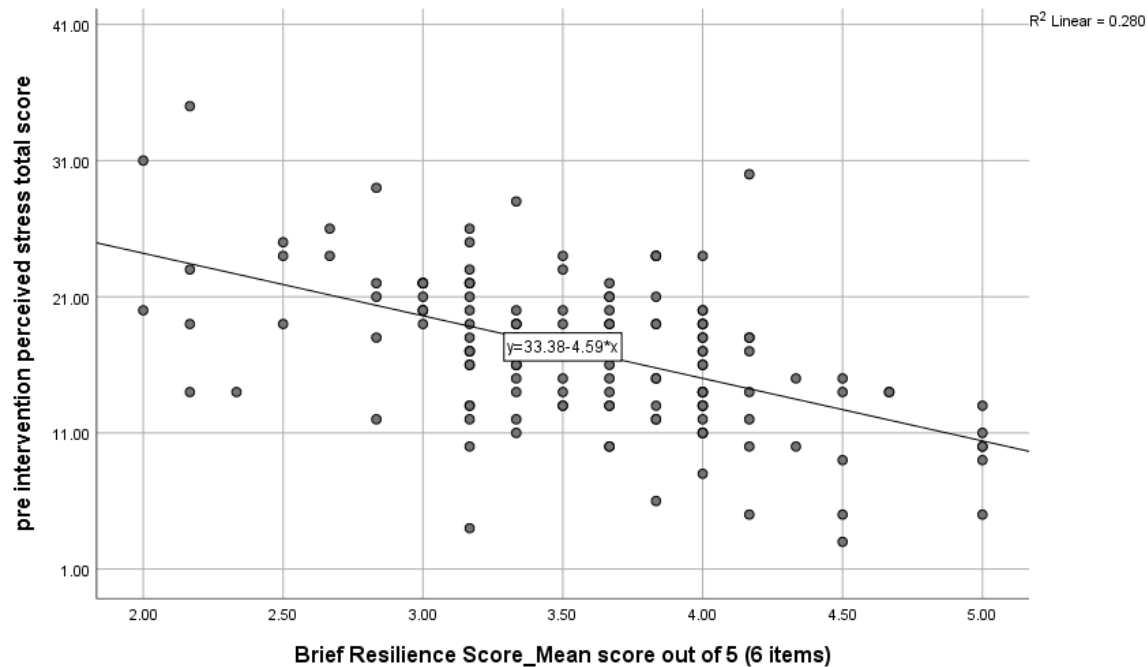


- $t = 3.01, p < .01$
- *Cohen's d* = 0.29; small/medium effect size

RESULTS

Correlations

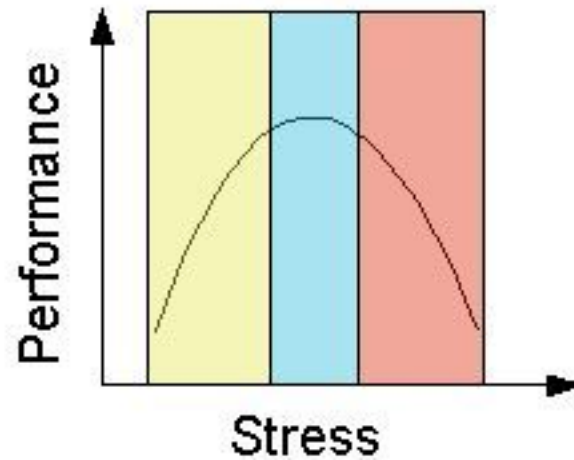
- Resilience X Well being: $r = .35$
- Resilience X Perceived stress: $r = -.53$



CONCLUSIONS

- Students reported lower wellness (lower well being, higher perceived stress) at the end of clerkship compared to beginning clerkship.
- More individual resilience was related to improved wellness scores.
- Experiences that enable growth in resilience and learning should be differentiated from stressors that do not have benefits for professional development (e.g. mistreatment).
- Identify opportunities to improve resilience during clerkship using a systems perspective.
- More research needed on functional strategies to build resilience from stressors experienced during clerkship and how to remove stressors that are avoidable and unrelated to effective learning.

The Yerkes-Dodson Curve



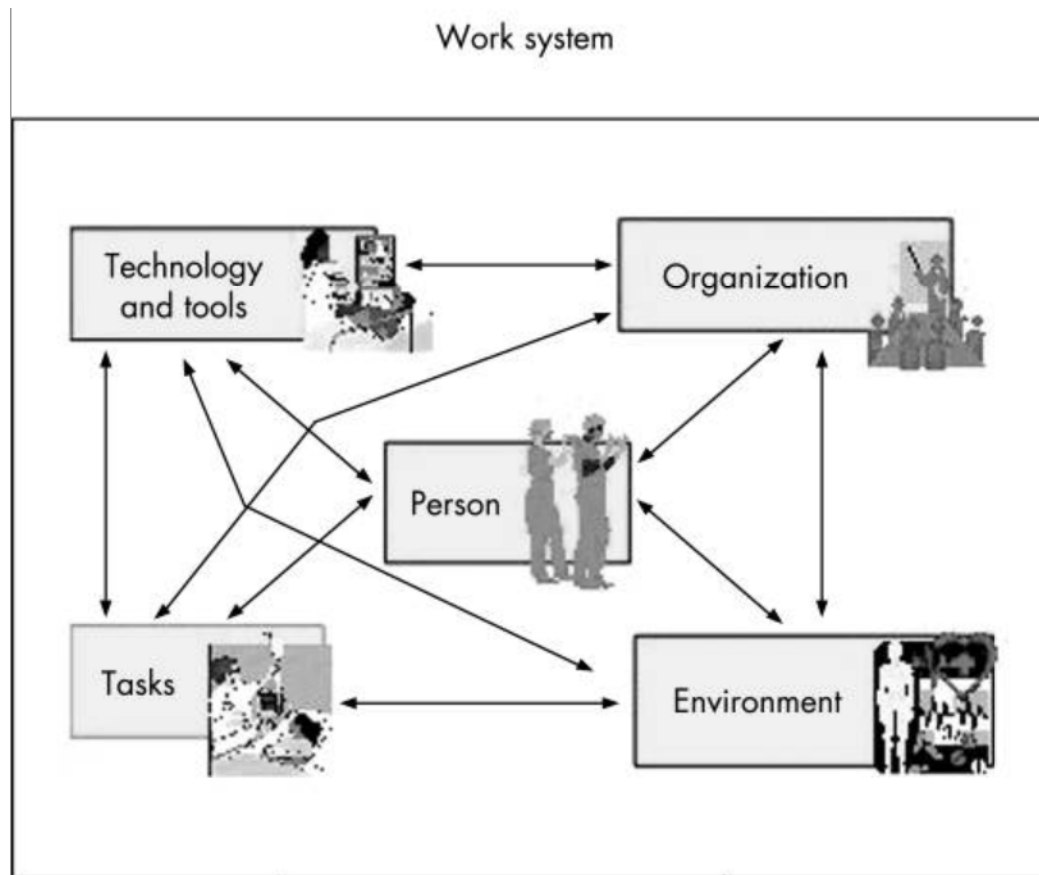
Unproductive - Not Enough Stress

Optimal Production
(Width Varies Based Upon Stress Tolerance)

Unproductive-Too Much Stress

RESILIENCE ENGINEERING

SEIPS MODEL (Carayon, 2006)



Questions