# Healthcare worker resilience results from more than underlying individual differences: A person-environment contingency perspective

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# Roadmap







PROJECT PURPOSE AND SUPPORT

SAMPLING AND METHODOLOGY

FINDINGS, IMPLICATIONS, AND NEXT STEPS



# The "Holy Grail" of Resilience

#### Resilience = individual difference

- Trait-like adaptability and adjustment, ego-resilience (Block & Kremen, 1996; Epstein, 1989; Friborg et al., 2005; Oshio et al., 2018)
- Ability to bounce back from adversity (e.g., Bonanno, 2004; Richardson, 2002)
- Composite characteristic (e.g., psychological hardiness; Bartone, 2013)

#### Resilience > individual difference

- Work experiences/contexts help or hinder ability to demonstrate resilience (e.g., Näswall et al., 2019; Stokes et al., 2019)
- JD-R (Bakker & Demerouti, 2017), Broaden and Build (Fredrickson, 1998), and other theories illustrate how our ability to respond to demands is influenced by external factors
- Worker resilience can be developed (or damaged), depending on work context elements (cf., Näswall et al., 2019)



# A Person-Environment Contingency View

- Worker resilience results from interaction of individual and environmental factors (cf., Fisher et al., 2019; Näswall et al., 2019; Pangall et al., 2014)
  - Consistent with conceptualizations of resilience in other fields, where it is understood that it is, "neither individual characteristics nor environmental influences alone, but rather a combination, that promote and help sustain resilience" (e.g., Herrenkohl, 2013, p. 191)
- Employees can be resilient when organizations enable proactive, adaptive, and support-seeking behaviors (Kuntz et al., 2016; Lengnick-Hall et al., 2011) and general resource access



# Study Objective and Methodology

- **Objective:** Understand how resilient healthcare workers manage and sustain their resilience in difficult work environments (e.g., hospital setting during COVID)
- N = 54 healthcare workers recognized for their resilience at different career stages
  - Administrator/leadership (e.g., executive and director level personnel)
  - **Physician** (e.g., residents, fellows, practicing physicians)
  - Nurse (of different forms, including physician assistants and nurse practitioners)
  - Staff (e.g., janitorial, food service, chaplains)
- Baseline survey / 8 to 10 monthly follow-up surveys / in-depth interview (30-60 minutes)
- **Sample characteristics:** Well-experienced, even M/F split, mostly White and non-Hispanic/Latinx, most married or in committed relationship



#### **Primary Participant Constructs – Survey Elements**

Work locus of control (baseline)

Core Self
Evaluations
(baseline + 7 monthly)

Comparative Physical Health (baseline + 7 monthly) Comparative Mental Health (baseline + 7 monthly) Psychological General Well-Being (baseline + 7 monthly)

Resiliency (baseline + 7 monthly)

Job-Related Self Efficacy (baseline + 7 monthly)

Burnout (Exhaustion) (baseline + 7 monthly)

Burnout (Disengagement) (baseline + 7 monthly)

Stress in General (baseline + 7 monthly)

Stress as
Achievement
(baseline)

Relaxation Remorse (baseline + 7 monthly) Income Inadequacy (baseline + 7 monthly)

Flourishing (baseline + 7 monthly)

Sense of Coherence

Job In General (baseline + 7 monthly)

Sex

Positive Affect (baseline + 7 monthly)

Negative Affect (baseline + 7 monthly)

Engagement (baseline + 7 monthly)

Compassion
Fatigue
(monthly follow-up 6 +7
only)

Ethnicity

Race

Relationship Status # of Dependents

Open Ended

Legend

Scale Variables

Demographics

Earned
Educational
Degrees

Age

Job Title

Organization

Department

Tenure at
Current
Organization

Tenure in Current Job

Spark (baseline)

COVID Perceived Personal Impact (baseline) COVID Perceived Impact on Work (baseline)

COVID Motivation (baseline)

COVID Meaning (baseline)

Typical Recovery
Strategies
(baseline)

COVID
Changes to Recovery
Strategies
(baseline)



#### **Selected Participant Interview Questions**

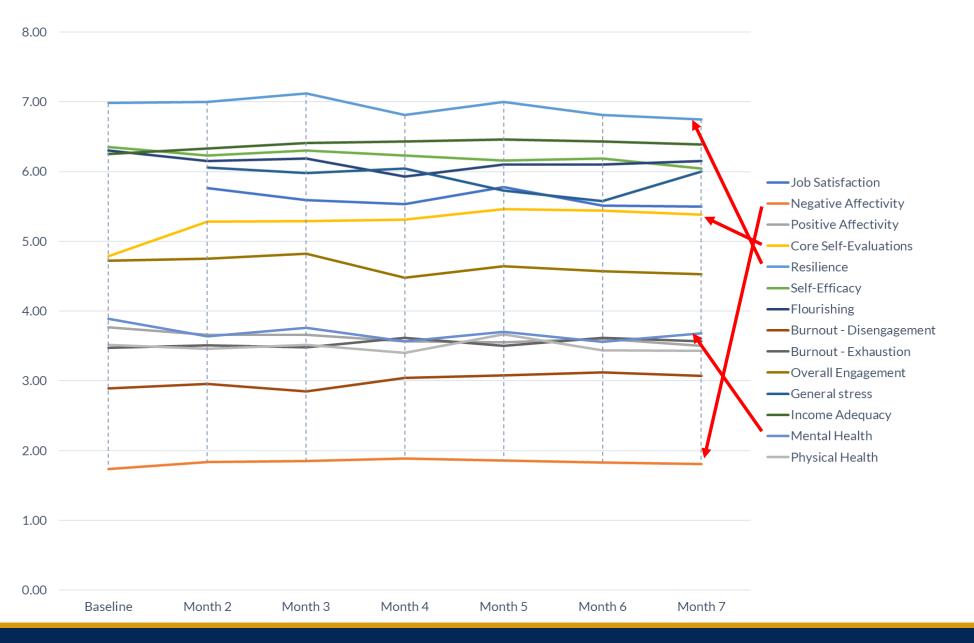
# Domain 1: Motivation

Domain 3: Relationships & Connections

- What about your work in the healthcare space do you find particularly motivating, even on the really difficult days?
- What aspects of your work do you find to be de-motivating?
- Has the healthcare industry's response to the COVID-19 pandemic affected your motivation to work in healthcare in a positive or negative way?
- How have interpersonal connections or relationships been important to you in your career to-date? Please explain.
- How do you stay authentic (true to who you are and what you value or care about)? Or do you?
- How do connections with others (coworkers, patients, etc.) influence how you approach your work?



# Remarkable resilience consistency over time





# **Key Findings**

 Most core person-level elements to resilience are +/- affected by personal, situational, organizational, and social factors at least somewhat organizationally controlled

Sense of meaning and purpose

 enhanced/damaged by work design, task assignments, workload, and resource availability

Acknowledgment and recognition

• can sustain motivation and sense of meaning if present (and destroy it if absent)

Positive outlook on growth and learning

 encouraged and empowered by organizational policies, practices, and resources

Relationships characterized as supportive and trusting

• impacted by staffing, work design, and organizational policies and practices

Consistently high-quality communication among colleagues and with supervisors and senior leaders

• helped/hindered by organizational policies/practices and resources (technology, staffing, training, etc.)



# **Key Findings: Supporting Comments**

- Sense of meaning and purpose can be enhanced/damaged by work design, task assignments, workload, and resource
  availability
  - "I'm really just disappointed because the way the healthcare system is set up...it does a great job at arming these...really talented individuals and them dumping them into this system where their talents are just kinda just exhausted...It's like taking a bunch of Ferraris and...making them tug, you know, freight across country; wasting their potential and wasting, you know, talent..."
  - "If you didn't document it you didn't do it and we all understand that but there's so, so much that we all do that never...ever gets documented anywhere...you know we sat at the bedside for 45 minutes and let grandma cry and tell us her whole life story...cause she lost her husband 3 weeks ago and she's given up...you don't want to walk away from that person but also your not going to sit down and type up the 45 minute conversation and say that's what you did."
- Acknowledgment and recognition can sustain motivation and sense of meaning if present (and destroy it if absent)
  - "...might be a terrible day let's say clinic and the last patient you see goes, "thanks for taking time and sitting down and talking to me," and that makes it all worth it because one person um found that it was helpful to them. I would say probably that being the (most?) thing and then being able to help somebody."
  - [RE being furloughed and not labeled as "essential" during COVID:] "...it can come across as well I guess I'm not as important as I thought I was. Its pretty it can be earthshaking for someone."
  - "I've definitely struggled with that...am I just like a glorified scribe, like what...are they paying me for? Or why do I show up? And then I have those moments where you know, I'll catch something before the physician does, or you know I have an opportunity to kind of take charge of a situation. I'm like, okay maybe this is where I'm supposed to be at...."



# **Key Findings: Supporting Comments**

- Positive outlook on growth and learning can be encouraged and empowered by organizational policies, practices, and resources
  - "I never know what I'm walking into when I walk in the door in the morning...and there's always a new challenge for me...just to continue to grow and learn and be a part of some else's journey or experience...I feel like I'm doing something that matters..."
- Consistently high-quality communication among colleagues and with supervisors and senior leaders can be helped/hindered by organizational policies/practices and resources (technology, staffing, training, etc.)
  - "I have a lot of great mentors...that meant a lot to me, people that I looked up to that...were great communicators...had a lot of knowledge, that were great teachers...had a passion for what they did..."
  - "My residency program director... really just mentored me and I looked up to her, I still talk to her on a probably monthly basis, even though I haven't even been in that facility in about 6 years and so I think just having people who care for you and are willing to help you or are willing to be a sounding board for you when you have questions or thoughts. Um it's been really impactful for me, and it definitely helped build that confidence that I have in what I do"
  - "We have a very open communication and that has been something that for my last 3 years now that (on days that?) and don't want to be at my job, I go and say, look I'll be honest, and just hey I don't want to be here today and they're often like me too or yeah we're in here together, here's platelets."



# **Key Findings: Supporting Comments**

- Relationships characterized as supportive and trusting are impacted by staffing, work design, and organizational policies and practices
  - "...when we lose a patient, when we have a really difficult situation, having those workers that understand that and get that is really... really meaningful and important and can help you sort of process through those really hard days..."
  - "Sometimes I don't feel like everyone feels or- and I know I don't (Clears throat) feel like we're as supported as we could be from the higher ups um...its hard when you get emails saying,"...you didn't document this, and you didn't document that" and it's like yeah, but we kept someone from nosediving out of their bed you know we... we chased someone naked down a hallway today. Yeah, I missed charting that vital sign, but you know we saved a life. That's hard."
  - "...the nurse practitioners that I work with, I feel like we're all really close...and they're all really great people. And the physicians, too. We have some really kind physicians. I tell everybody that we probably are the best group to work for as a nurse practitioner because, for the most part, our physicians really appreciate us. And typically show us that they appreciate us...and they're very kind and they're never condescending...so we're really lucky in that aspect, because not every group is like that..."
  - "... I think sometimes there can be a lack of support or just understanding from the system as a whole as far as what we do um or how much effort or support is required to do our jobs."



# Implications and Next Steps

- Mixed-method research helps uncover complex and dynamic interplays between worker- and organization-level factors
- Person-level resilience is not only a function of internal differences
- The presence/absence of these resilience-sustaining or enabling resources is largely due to work design and organizational management of resources (allocation of, but also policies/practices associated with)
- Building and sustaining worker resilience requires building and sustaining resilience-enabling work contexts
  - It is time to focus on this (better work design)





Questions?

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#### References

- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. https://doi.org/10.1037/ocp0000056
- Bartone, P. T., Kelly, D. R., & Matthews, M. D. (2013). Psychological hardiness predicts adaptability in military leaders: A prospective study. *International Journal of Selection and Assessment*, 21(2), 200-210. https://doi.org/10.1111/ijsa.12029
- Block, J., & Kremen, A. M. (1996). IQ and ego-resiliency: conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology, 70*(2), 349. https://doi.org/10.1037/0022-3514.70.2.349
- Fredrickson, B. L. (1998). What good are positive emotions? Review of General Psychology, 2(3), 300-319. https://doi.org/10.1037/1089-2680.2.3.300
- Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J. H., & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research*, 14(1), 29–42. https://doi.org/10.1002/mpr.15
- Herrenkohl, T. I. (2011). Resilience and protection from violence exposure in children: Implications for prevention and intervention programs with vulnerable populations. In T. I. Herrenkohl, E. Aisenberg, J. H. Williams, & J. M. Jenson (Eds.), *Violence in context: Current evidence on risk, protection, and prevention* (pp. 92–108). New York, NY: Oxford University Press.
- Kuntz, J.C., Näswall, K. and Malinen, S. (2016), "Resilient employees in resilient organizations: flourishing beyond adversity", Industrial and Organizational Psychology: Perspectives on Science and Practice, Vol. 9 No. 2, pp. 456-462.
- Lengnick-Hall, C.A., Beck, T.E. and Lengnick-Hall, M.L. (2011), "Developing a capacity for organizational resilience through strategic human resource management", Human Resource Management Review, Vol. 21 No. 3, pp. 243-255.
- Näswall, K., Malinen, S., Kuntz, J., & Hodliffe, M. (2019). Employee resilience: development and validation of a measure. *Journal of Managerial Psychology*, 34(5), 353-367. https://doi.org/10.1108/JMP-02-2018-0102
- Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: a meta-analysis. *Personality and individual differences, 127*, 54-60. https://doi.org/10.1016/j.paid.2018.01.048.
- Pangallo, A., Zibarras, L., Lewis, R., & Flaxman, P. (2014). Resilience through the lens of interactionism: a systematic review. *Psychological Assessment, 27*(1), 1-20. https://doi.org/10.1037/pas0000024
- Stokes, P., Smith, S., Wall, T. and Moore, N. (2019). Resilience and the (micro-)dynamics of organizational ambidexterity: implications for strategic HRM. *International Journal of Human Resource Management*, 30(8), 1287-1322. https://doi.org/10.1080/09585192.2018.1474939

