ACADEMIC Leader

The System beneath the Symptoms, Part 2: Root Causes

Katherine Sanders ▪ October 2, 2023

In the first part of this article, I discussed levels of intervention to help shift a system toward health. If we want to change trends such as exhaustion and burnout, we need to address the structures that are causing these patterns. I highlighted workload as a likely contributor to exhaustion and recommended that we reassess what we're asking of our faculty, staff, and students to ensure it's realistic and humane.

It's typical for a conversation about exhaustion to go down the path of individual responsibility. That is, many organizations put forward wellness initiatives and healthcare benefits as remedies for poor mental and physical health outcomes. The assumption goes something like this: "Individuals are responsible for their own health. If people modify their choices, they can stay healthy." This assumption is flawed because it ignores the situations people are placed within and the effects those situations have on people over weeks, months, and years.

Wellness initiatives and healthcare benefits aren't enough

Many organizations invest heavily in wellness programs and healthcare benefits but still don't see hoped-for health improvements. An individual might be seeing a therapist, paying closer attention to their nutrition, meditating, and exercising and still come home at the end of a workday exhausted. If this is rare, it might just be a bad day. If it goes on for months and years, it is a chronic situation that will likely lead to poor mental and physical health outcomes.

Although wellness initiatives and healthcare benefits have the potential to help people improve their individual health, they cannot solve exhaustion and burnout trends. The trends stem from the way the work systems are designed. To change the trends, we must address root causes. What is it about the way we work that causes poor mental and physical health outcomes for faculty, staff, and students?

The stress-strain process

Professor George Box, founder of the statistics department at the University of Wisconsin–Madison, used to say, "All models are wrong, but some are useful." In that spirit, I offer this simplified model to help explain how work stressors erode mental and physical health over time (Figure 1). I color-coded the model to show how professionals with different types of expertise can intervene to help improve employee health.

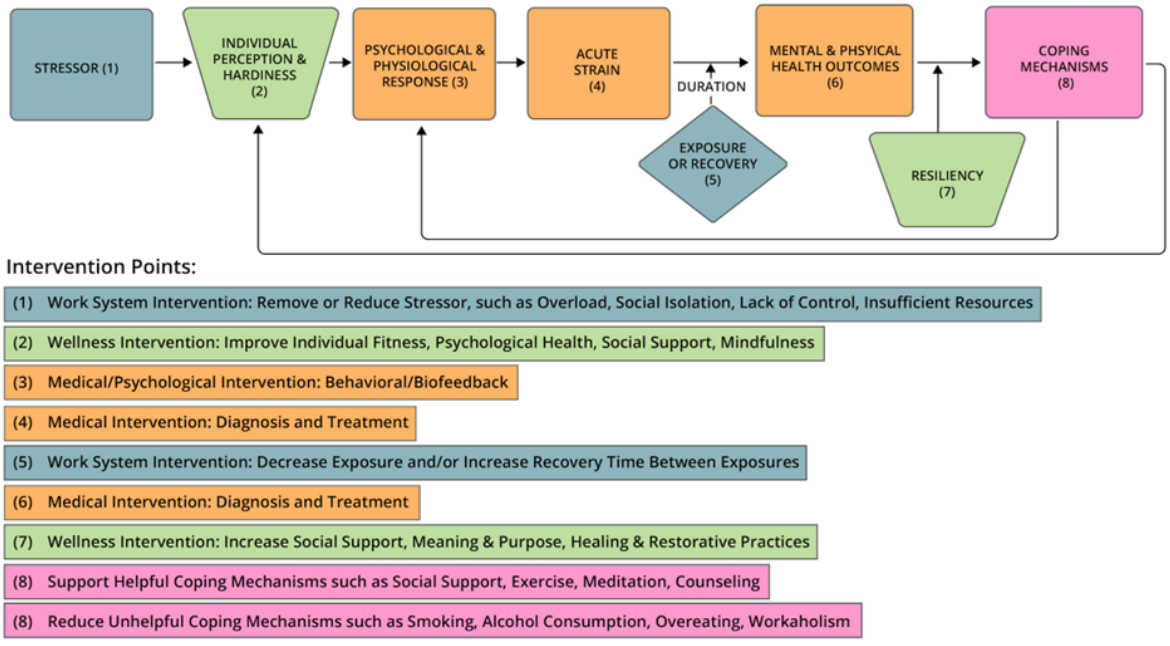

Figure 1. Stress-strain process

The stress-strain process begins with a workplace stressor (blue square). Common workplace stressors include high workload, low levels of autonomy, social isolation, insufficient resources and role conflict. I will use workload as an illustration. If the quantity of work required exceeds the resources a person has to do it (time, energy, staff, etc.), the stressor is overload.

The stressor (overload) is filtered through the individual's own perceptions and hardiness (green bin). Each of us is born with genetic strengths and vulnerabilities. Over the course of our lives, we develop lenses through which we perceive and filter the world around us. Everyone is different. People exposed to the same stressor will have a range of responses. This isn't a problem, it's a reality. Additionally, our perceptions and hardiness continue to evolve. We might become hardier or less so, depending on what life brings us and the support systems we have access to. If I am already fatigued, I will perceive the addition of overload as more threatening than if I come into the situation rested.

As we filter what we're living through our individual perceptions and hardiness, our bodies and minds respond to what we're perceiving (orange square). We have immediate psychological and physiological responses. If we perceive the stressor as a threat, our stress response kicks in, increasing our cortisol and adrenaline levels, cascading physiological changes throughout our bodies. These changes are adaptive for short intervals, but without adequate recovery time, these highly alert states cause long-term health problems.

The physiological stress response might lead to acute strain (orange square). For example, one might get a tension headache, have back spasms, or feel anxiety. Over-the-counter or prescription medicine might help alleviate acute symptoms. A person might also take a walk, take a nap, or find another way to rest and recover from acute strain.

If acute strain continues for weeks, months, or years without adequate recovery time (blue diamond), it can evolve into chronic mental and or physical health outcomes (orange square). Chronic mental and physical health outcomes—such as anxiety, depression, migraines, high blood pressure, autoimmune disorders, diabetes, and fertility issues—are associated with a prolonged stress response. Healthcare professionals diagnose and treat these chronic medical conditions.

Resiliency (green bin) comes into play after a person has been harmed. In the best-case scenario, we have support to fully recover from the chronic condition(s). But partial recovery is more likely. Some harms, once done, are difficult to heal.

Coping mechanisms (pink square) are represented at the end of the model, although they come into play all along the way. All of us have developed ways to comfort ourselves. When stressed, some might run, go to the gym, or call a friend. These responses are helpful coping mechanisms because they have the potential to improve our hardiness and help our body and mind recover from what we've experienced.

But we all have less-helpful coping mechanisms as well. In the short term, eating ice cream and watching reality TV might be comforting. Comfort food is aptly named because it initially "works." People literally feel comforted. But when we indulge in them regularly, some self-soothing habits (overeating, workaholism, alcohol, smoking, etc.) do long-term damage to hardiness.

I do not recommend trying to control others' coping mechanisms. (It's challenging enough to try to modify our own!) This isn't a place for workplace intervention. We can offer benefit programs to help people who wish to change their coping mechanisms, and we can make it easier for people to choose

more helpful coping mechanisms, such as by offering healthier options in the cafeteria and vending machines. But the goal should be to reduce the need for people to self-soothe because of high levels of workplace stressors.

The color-coding shows how different kinds of expertise can support employee health. The orange squares show where medical professionals support us. We might take a class in biofeedback or see a therapist to talk about our psychological and physiological responses. We might seek a prescription for tension headaches or muscle spasms. We might see specialists to help diagnose and treat chronic health issues.

The green bins show where wellness initiatives support us. Mindfulness and meditation can help us become aware of our individual perceptions and improve our hardiness. Wellness activities—like nutrition, yoga, and fitness—can also help us after we've been injured or are trying to heal a chronic health condition.

The blue areas are where we eliminate or decrease the intensity of the stressor (blue square) or reduce people's exposure to it (blue diamond) by *increasing on-the-job recovery time*. The assumption that people recover from work when they are home is unrealistic. People's lives outside work are also demanding. We cannot continue to assume that family life or vacation time can neutralize poor work system design.

Address root causes

If we want to reduce exhaustion and burnout, wellness activities and good healthcare are necessary, but not sufficient. We must look at and address the structural issues causing the stresses. That is, we must remove the stressors (overload, social isolation, lack of control, insufficient resources, etc.) where possible and reduce those that cannot be removed.

We also have to build slack into our work systems to give people time during the workday to recover from the stressors inherent in the job. (I realize that advocating for some slack in a work system might be shocking, especially coming from an industrial engineer.) There is an assumption that slack in a system is waste. I feel this is a limited view. Humans need slack to self-regulate. Slack is downtime, recovery time, reflection time, connection time, and innovation time. To remove slack from work is to design a brittle and inhumane system, where one breakdown will lead to a domino effect of other breakdowns.

Getting started

To help ourselves, we can start to identify the aspects of the job that are most stressful and intentionally find rest periods for recovery over the course of the workday. This might mean putting short rest breaks on your calendar every day, during which you will not attend meetings. It might mean reconsidering the amount of homework you give and how you give grades and formative feedback.

To help ourselves and our colleagues, we need to start identifying and addressing the most common and exhausting stressors. We must start asking hard questions: How much work is enough? Are our workload expectations realistic? Is teaching three undergraduate classes a similar workload to advising ten graduate students? Is a day teaching in a clinic similar to a day teaching in a classroom? Is developing a research program without social support from your department likely to lead to scholarly success? To address faculty and staff exhaustion and burnout, we must reassess what we are asking of people.

Understaffing is the most likely root cause of employee exhaustion and burnout in any sector or organization. For people to find recovery time during the workday, we must introduce some slack into the system. This might mean hiring more staff. It could also mean reducing the organization's scope of work.

Similarly, to help reduce student exhaustion, we must reassess what we're asking of students. If performance expectations aren't realistic, students are at risk for poor mental and physical health outcomes. Faculty and staff can talk with students about course workload as well as the timing of tests and projects across courses. Curriculum committees can reevaluate course loads and degree requirements to promote student learning as well as student health.

When it's normal for us to discuss the types of stressors we are experiencing without feeling as if we are weak for acknowledging them, it will be easier to periodically reexamine productivity expectations for faculty, staff, and students. We can also be intentional about building in daily recovery breaks. These will look different for everyone, but I look forward to the day when an annual review or student mentoring session asks not only what we will accomplish but how we plan to recover from intense work periods. If we can plan it, we can do it.

Summary

To address trends of exhaustion and burnout, the first step is to identify and try to either eliminate or reduce the stressor(s). If we can't eliminate the stressor, we then must give people time during the workday for recovery. This doesn't necessarily mean people need to take naps or have complete silence, but there must be enough slack in the system to allow people to choose restorative activities, such as taking a walk, sitting in the sunshine, chatting with a colleague, or perhaps just moving to a less or differently demanding task. The key here is to allow choice. Allow people to choose the restorative activities that work best for them. Allow and encourage people to self-regulate.

Keep in mind that wellness initiatives and healthcare benefits are important, but they cannot overcome poor work system design. We can't meditate our way out of a poorly designed job or an unreasonable workload. Meditation can help us reduce the impact of the demands, but over time, the work system will wear people down.

Katherine Sanders, PhD, is a work systems and human factors engineering consultant. She founded a faculty development center at the University of Wisconsin–Madison and led it for 13 years. Dr. Sanders teaches systems thinking, change readiness, and the design of work to promote employee health, innovation, and sustainable productivity.