

Pathways to Sleep IC. From Health to Sleep

The Stress Reduction Pathway

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Stress-reduction is a no-nonsense pathway. It is specifically intended to help people get and stay healthy—and one of the major areas in which stress-reduction might be most helpful is in helping us fall asleep and stay asleep. Given the proven record of stress-reduction as an effective pathway to sleep, it is not surprising that it receives considerable attention in the literature on sleep quality. Furthermore, it is not surprising that the field of stress-reduction is filled with many diverse practices and strategies. There is an expansive foundation of bio-social-psychological research that supports the various practices now being employed. We will not attempt to survey this literature or identify all of the stress-reduction practices, but will instead focus on stress-reduction and sleep (building on what we have already presented in the previous essay on exercise and sleep).

The Nature and Challenge of Stress

This pathway is the one most of us living in a very challenging environment want most to work for us. We are fortunate (and unusual) if we don't face some stressful situations in our personal and work life and if we don't bring these situations with us when entering the bedroom. In dealing with this pathway, we will first return briefly to our current understanding regarding the sources of stress, and then turn to specific stress-reduction strategies that might help us get a good night of sleep.

When you try to go to bed, you lie awake for hours not being able to sleep. When you finally do sleep you toss and turn all night with a pit in your stomach. You start the next day feeling hungover and sluggish, which makes it that much harder to face those typical obstacles at work and home and life, so you feel even more wiped out. Repeat ad infinitum. Ugh. This is a typical cycle of stress. Many of us are too familiar with this scenario and how to get off this merry-go-round.

The Broad Nature of Stress

Stress is related to an ongoing environment condition and to one's own perception of and reactions to this environmental condition. It is important to note that stress is not the same thing as trauma. Traumatic events are often immediately life-threatening, whereas stress doesn't typically constitute an immediate existential threat. We are not "killed" by a pending job performance review or pile of unpaid bills. Rather, the challenging job or financial hardship is a long-term source of potential threat. Stress is usually sustained over time rather than being a sudden intrusion.

Negative stress is defined as anything that poses a sustained challenge or threat to our well-being. Conversely, positive stress is defined as anything that poses a sustained challenge which leads to new learning, excitement or an ultimate release of tension. For instance, we can find the climbing of a rock face to be challenging, but also exciting and highly rewarding—just as learning and mastering a difficult piano score can be a source of initial anxiety and later a source of personal pride. Mihaly Csikszentmihalyi describes this state of positive stress as a threshold between anxiety and boredom—and provides a label ("flow") for the remarkable experience associated with the state when we are navigating the rock face or music score.

Of greatest importance for some interested in getting a good night of sleep is the role played by positive stressors as motivators for change and guides for movement towards a more harmonic state of wellness—this is where our previous essay on exercise comes in. We recognize while on the rock face that some time each week needs to be set aside for exercise and outdoor experience—whether it is climbing the rock face or running five miles.

We would suggest that there are additional benefits associated with positive stress and sleep. Positive stress leads us to pay better attention to our health (including pathways associated with components two and three) – and thereby get a better night of sleep. While playing the piano, we come to recognize that it is important for us to take care of our health if we are to continue enjoying the music. We seek out "flow" and recognize that life is worth living in health. We want to frequently find flow in our work, our family and our time of re-creation—so we try to remain healthy.

We can offer an even more expansive framework regarding stress. While stress is often referred to as a negative factor, it is an essential part of our life. Without any stress, our lives would be boring and would probably feel pointless. We would be living at one end of Csikszentmihalyi's spectrum:

boredom (and stagnation). However, stress that undermines both our mental and physical health resides at the other end of Csikszentmihalyi's spectrum: anxiety (and overwhelm). Anxiety-filled stress is considered negative, while flow-filled stress is considered positive – an important discrimination to be made by a health-care coach when helping their client “manage his ‘stress’”.

What about negative stress—the kind that leads to disrupted sleep. Negative stress results from any challenge or threat to our homeostasis or sense of normal functioning—regardless of whether it is real or perceived. The response to this threat remains the same physiologically—whether or not the threat actually happens. Just the anticipated fear that the threat will happen is stressful.

A stress response is the body's activation of physiological systems to provide a sense of safety and protection. Interestingly, this activation of protection can inadvertently cause the reverse effect and challenge our physiology—if it is regularly activated with intrusive threats. This activation is based in the HPA axis (hypothalamic-pituitary-adrenal axis) and is directed toward restoration of normal functioning and eventual reduction in bodily alarm from the threat.

Chronic activation of the stress response can lead to wear and tear that eventually predisposes an individual to disease. When exposed to intense and unwelcomed stress we begin to feel powerless and inevitably vulnerable to a stress-inducing environment. We become not just stressed IN our personal life and work environment; we also become stressed ABOUT living this life and working in this environment. We believe (and feel) that we have no control over our life and our exposure to stress. In other words, we become stressed about being stressed. It is a vicious circle – a “double whammy.”

In seeking to get a good night of sleep, we should address two fundamental questions about stress: (1) Is stress always bad—when is stress a good thing in your life? And (2) when stress is harming you, what do you do about it? Following are some more specific questions that you might ask yourself:

- What physical indicators tell you that you're stressed?
- What are the primary sources of your stress: internal (inside your head and heart) or external (family, work environment, physical environment, finances, life habits and demands, etc.)?
- What are your primary internal sources of stress: fear of failure, performance anxiety, generalized worry/fear of unknown?

- What are your primary external sources of stress: financial, relationship, family, death, moving, occupation change?
- How do you currently manage your stress?

There are also several more provocative questions to ask yourself

- Do you ever get stressed about being stressed?
- What would happen if you became healthier? How would you be different? How might your relationships with other people be different?
- What would you have to give up in order to lead a healthier and less stress-filled life?

The “Perfect Storm” of Negative Stress

So, what happens when negative stress become more the norm than the occasional happenstance? Frankly, it is a “perfect storm.” As we look specifically at the biological processes associated with stress and trauma, we find nothing but bad news. Under sustained conditions of stress (especially unwelcomed stress) we become increasingly sensitive to events that are potentially traumatizing. What used to be a source of mild stress now becomes highly stressful – even traumatizing. Our mental categorization of trauma and stress become part of our daily life. Thus, we end up in a “stress rut” We become more easily stressed and thus traumatized by once-minor intrusions. The world becomes increasingly unsafe for us—in fact as well as in our state of anticipation. Everything that challenges us is heightened.

It gets even more complex and bleak. In essence, our body remembers past stress and trauma. What does this mean? Basically, it means that our body along with our brain stores information (negative and positive). Our body is prepared for the repetition of events from earlier in our life and makes adjustments (involving such diverse functions of our body as our hormonal system, reproductive system and sleep cycles). This means that our body operates as an integrated system that demands “all hands onboard” when a real, anticipated or imagined trauma occurs.

We will add one additional factor. This is the impact on our social relationships when stress and trauma come together. Increasingly, in the field of health care (and in the emerging field of health-based coaching), a multi-disciplinary perspective has emerged: biological, psychological and social processes are integrally involved in physical illness and health, medical diagnosis, medical treatment and recovery from ill health.

We propose that a holistic, integrative biopsychosocial perspective on stress is fundamental to any component one sleep-quality pathway. The need for seeing the health care world through a biopsychosocial lens is particularly important when considering the dynamics of negative stress. When we are stressed, our social relationships are often blown up – or at least distorted. We tend to become preoccupied with our own welfare and our cognitive functions are impaired (we become cognitively focused and rigid). We see life through a distorted lens.

A World Filled with Lions

Essentially, under conditions of stress we are running away from the imagined or actual “lion” (challenge) mentioned in previous essays on sleep. All of our attention and physical energy is devoted to saving our own life. We are not in the mood for building new relationships or enhancing existing relationships -- unless this relationship can help us escape the lion (what is often called a focus on instrumental or functional relationships). It is only after we have escaped the lion that we can devote ourselves to nurturing relationships. Post-lion recovery can promote intimacy and allow us to be vulnerable, (which in turn leads to our own continuing maturation and emotional development). We can sit around the campfire, roast marshmallows and talk about our successful race away from the lion. But this can take place only if we have escaped the lion. Otherwise, the lion is sitting around the fire with their friends talking about the great meal just consumed (gnawing on our left leg).

The problem arises when we are always imagining that lions are chasing us – in other words when we are always under stress in a world and life filled with lions. Under these conditions, it is never time to form or sustain a meaningful, growth-enhancing relationship. We can never find the time or energy to engage in anything besides instrumental relationships. This means that we are not likely to find any meaningful support among people around us when we are confronting sustained stress. We are standing alone, with no one to hold our hand or offer support (and helpful advice) about how we might best address the stress.

Being Vigilant about Lions

As we already mentioned in the essay on exercise and sleep, the major stress-filled challenges facing us are not always real and immediate present. They are often anticipated or even imagined. They are the lions we produce in our fertile imagination that seem to be either crouching and are prepared to pounce or are already chewing on our leg (or more likely our heart and mind). We

have already mentioned in a previous essay that it gets even worse. We don't try to fight the lion or run away from the lion. Rather we freeze and hope the lion doesn't see us or simply considers us unworthy of attack (or not very appetizing).

What we have not noted up to this point is that we must remain vigilant while the imagined lion is lurking. If the lion is already harming us, then we can test to see if it is real or not.

- Am I actually being hurt right now by the abuse heaped on me by my boss (remember the old childhood refrain: “sticks and stones may break my bones, but words can never harm me!!”). Will my boss fire me or reduce my salary or put me on probation – or is this just him blowing off steam?
- What if my adolescent child threatens to leave home after our argument this evening. Will she actually leave and for how long? And what realistically are likely to be negative outcomes from her staying at her friend's house for several days?
- Yes, I did get a warning from my physician about being overweight. But what are the chances that I will experience a heart attack during the next couple of months. And I can begin some weight-reduction initiatives.

The Behavioral Economy of Lions

There is a new interdisciplinary field called “behavioral economics” (that has generated several Nobel prizes). Researchers in this field have identified what they call “heuristics” (simple, easily-accessible rules and perspectives)—and among these heuristics are several that focus on negative outcomes. We see these heuristics operating when we decide not to fly on an airplane (having read of the crash of a plane), when it is much safer than driving a car. A negative heuristic also operates when we envision what our harassing boss could do, when we imagine the harm that could come to our daughter leaving home, or when we anticipate our heart attack.

If we imagine that the lion is actually attacking us, then we can assess the situation in a realistic manner – and challenge our own negative heuristics. It is when the lion is “lurking” that we are most inclined to experience stress. It is when we have almost lost a job or almost felt ill that we worry most – for we can imagine the negative impact and can most fully employ a negative heuristic without recourse to actually testing out the probability of the negative impact (for it is a possibility rather than an actuality).

In brief, stress is often about what we anticipate, what “might” happen, what we fear could occur, what we have seen occur in the news (what is called vicarious stress-induction and traumatization). When there are many lurking lions all around in our environment, then we are likely to find high quality sleep to be a real challenge – and yet another source of stress. Sadly, it is a vicious circle: we are stressed out about being stressed and are stressed out because we are preoccupied with the stress, and are subsequently stress out about the impact of living under conditions of stress—especially when it comes to getting a good night of sleep.

So, what are we going to do about this very difficult situation? How do we kill the lions or at least shoo them away?

Doing Something About Stress

First, it is important to remember what we have already noted: there is both positive and negative stress. Certain types of stress can make you stronger and stress is an important part of our physical well-being. Physical and mental challenges can rewire your brain so you’re better prepared to handle whatever life throws your way. Nevertheless, it is also important to note that negative stress is an epidemic and a destroyer of sleep. It wrecks not only our sleep, but also our body and brain in more ways than one. Stress can be attributed to your hair falling out, your clothes becoming tight and your immune system and your hormones, gut, mood, and poor, overloaded brain) go haywire just to name a few. The physiological damage due to stress can be phenomenal. The good news is: you don’t have to let stress hold you back.

Managing stress is a matter of establishing daily or weekly habits with some well-known techniques. Many of us hear about these techniques but fail to employ them due to our stress level. The perpetual “Catch 22” is underway! As health care practitioners (who address sleep problems as well as other health-related issues) we tell our clients to pick one and start with that. It is too difficult to try to incorporate everything into the routine. Starting with one change can make a significant difference. Keep in mind that a habit is established after you incorporate that change for 21 days without a break. It is also important to remember that you can break a habit by not doing that same thing for 7 days. It is harder to establish the habit but once you have it as part of your routine you are more likely to keep it going.

Here is an initial list of the ways you can help yourself manage your stress:

- Exercise (yoga walking, low impact aerobics, dance, weight training, swimming, bicycling, there are numerous ways)
- Eating organic whole foods
- Take nutritional supplements to aid with stress
- Meditation
- Biofeedback
- Neurofeedback
- Massage
- Psychotherapy
- Aroma therapy
- Laughter and doing something fun
- Take a trip down memory lane

We will now offer a more detailed list that is sorted into several categories (and partially repeats some of the strategies just listed).

Stress Reduction Strategies: Direct Approaches

Along with mindfulness, this is one of the focused, active ways to set the stage for a good night of sleep—this is a way in which we can all do a better job of “managing” our sleep. Like mindfulness, stress reduction pathways can be planned and enacted just before sleep time. Actually, mindfulness is itself one of the stress-reduction strategies.

- (1) Prayer (the oldest of the strategies)
- (2) Breathing/Progressive relaxation (often has evolved into mindfulness in 21st Century)
- (3) Appreciative reflection: finding the benefit of stress, leveraging the positive aspects for addressing the stress (count your blessing all day long—not just at bedtime)
- (4) Exercise (see previous essay)—an antidote to freeze (modern alternative to flight and fight)
- (5) Brain-alteration: neurofeedback

Stress Reduction Strategies: Indirect Approaches

These strategies are aligned with the billiard ball analogy offered in our previous essays (and in future essays). Negative stress is often reduced indirectly through the actions we take. These are

one-bank-shot or two-bank-shot strategies. Remember, when it comes to health and our body, everything is related to everything else!

- (1) Get rid of the stress: problem-solving
- (2) Isolate the stress: compartmentalize
- (3) Balance off the stress with other initiatives (Kurt Lewin: force-field analysis: can't just add more positives)

Conclusions

Negative stress-reduction can be a key pathway, when it comes to health-related practices leading to higher quality sleep. The value of multi-faced stress-reduction strategies can't be over-emphasized—nor can the value of mindfulness practices. We don't need to imagine lions in order to stay alive—but we do need to get rid of the lions we imagine and must find strategies to escape the lions that seems to linger and keep us awake at night. Welcome (hopefully) to the world of lion-less sleep . . .