Designing and Implementing Strategies to Prevent and Recover from Burnout

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CPOW committee
BPS19, 63rd Annual Meeting of the Biophysical Society
March 4th, 2:30-4:00 pm, 2018, Baltimore, Maryland
Guest speakers:

- Vasanthi Jayaraman
- Kenton J. Swartz
Discussing the problem

- Survey's results reflect pressing issues and struggles throughout the biomedical-research community...

- Department chairs at MD Anderson Cancer Center admitted that “the morale of faculty scientists has significantly worsened in recent years.”

- One interviewee said, “Many faculty are deflated, unsettled and depressed. There is a sense of hopelessness; they’ve given up. There is some resentfulness; they’ve spent a long time establishing their careers and now there doesn’t seem to be a way to continue doing what they like to do.”

https://www.nature.com/naturejobs/science/articles/10.1038/nj7464-613a
Stressors:

- #1 stressor among different institutions and departments is \textit{funding}.
- Lack of solid support from home institutions that constantly raising the bar and intensify levels of \textit{comparison} and \textit{implicit competition}.
- Executive leadership of institutions expect faculty to seek and obtain more grants, high-impact journal publications, higher standards for academic excellence in teaching/collaborations.
- Excessive \textit{teaching load}, with many of the articles refer to teaching as a key source of burnout.
- A \textit{British 2005 study} of workplace stress across 26 occupations found university faculty members to be among the worst professions in terms of self-reported psychological well-being.

https://www.chronicle.com/article/4-Ideas-for-Avoiding-Faculty/243010
Q: What is the biggest challenge to your career progression?

- Competition for funding: 55%
- Lack of jobs: 40%
- Lack of networks: 32%
- Inability to sacrifice personal time: 23%
- Inability to relocate: 15%
- Discrimination/bias: 13%
- Lack of relevant skills: 11%
- Language skills: 9%
Q: Have you experienced discrimination or harassment at your current job?

Out of a total of 707 responses, 329 people experienced gender discrimination in their job. Of those, 91% were female.
What are the risks for graduate students?

Mental health problems and suicide in Ph.D. students:

- One survey of 3,659 students in Belgium suggests that 32% of Ph.D. students are at risk of having or developing a psychiatric disorder such as depression (Res. Policy 2017, DOI: 10.1016/j.respol.2017.02.008).

- A survey of 301 graduate students at Emory University determined that more than 34% likely had moderate to severe depression, while 7.3% reported suicidal thoughts, and 2.3% reported having plans for suicide (Acad. Psychiatry 2014, DOI: 10.1007/s40596-014-0041-y).

“The rates of mental health issues in this population are elevated significantly above the general population,” says Nathan L. Vanderford, assistant dean for academic development in the University of Kentucky College of Medicine.

“Students are putting so much effort and energy into pursuing the degree that every single step can carry a lot of weight. Certainly there’s fear of failure or perception of failure,” says Christa Labouliere, a clinical psychology professor and administrator for a suicide prevention program at New York State Psychiatric Institute, which is part of Columbia University Medical Center.
Suicidal thoughts

“I might not have felt so alone had I known how many people struggle with mental health issues in academia.”

- A 2015 study at the University of California Berkeley found that 47% of graduate students suffer from depression, following a previous 2005 study that showed 10% had contemplated suicide.

- A 2003 Australian study found that that the rate of mental illness in academic staff was three to four times higher than in the general population, according to a New Scientist article.

- The percentage of academics with mental illness in the United Kingdom has been estimated at 53%.
A deficiency in the acceptance/acknowledgment of the problem:

“In essence, many Ph.D. students are so accustomed to hard work and self-discipline that they beat themselves up when their efforts to manage depression fail to generate perfect results.”

“Too many people in academia assume that psychological problems are only for the weak.”
Now what?

- Are there ways, solutions to overcome difficulties scientists facing in their everyday life?
- How to cope with the work-related problems and not to loose our humanity and continue to maintain work-life balance?
- How to recognize, prevent, and counteract burnout?
- How to manage stress, promote a sense of well-being, improve efficiency, and revive our genuine enthusiasm for science?
Three ways Colleges can help faculty members avoid burnout

From The Chronicle of Higher Education: “There’s plenty of things that colleges and universities can do on this front, and the burden shouldn’t fall entirely on faculty members themselves.”

1. Treat all faculty members [including non-tenure track] like faculty members
2. Take a universal design approach to faculty mental health:
   - Create polices of inclusivity and support for faculty mental health.
   - Treat mental illness as abnormal part of a diverse professoriate.
   - Create a culture of access prioritizing mental health.
3. Support faculty work/life balance
   “prisoner of love” problem - employees who love what they do are easier for employers to Exploit
   Universities should:
   - create a work culture supportive of families
   - enable faculty to adjust their schedule to care for family members
   - departments should support family leave
Four ideas for avoiding faculty burnout

From The Chronicle of Higher Education: focuses on what individuals, rather than institutions, can do

1. Take time off, if only for an evening
2. Remember that your job is a job - even if you love it
3. Find ways to say no
4. Prioritize sleep over extra class-prep time.
Why I collapsed on the job?

From the Chronicle of Higher Education:

“A tenured professorship has always been my dream job, because it provides freedom and flexibility. You teach what you care about; you decide what to research. But the benefits of such freedom and flexibility in academia come at the cost of disappearing boundaries between work and life. We are so free to work whenever we want that many of us end up working all the time, not having full weekends and rarely taking off more than just a few days, despite popular perceptions to the contrary. We bring our work home or anywhere we go — on flights or long drives, to vacations or family reunions.”

“We live a day-to-day illusion that we don’t have a boss. We have only "self-imposed" deadlines. Everything we do is our choice.”

Well-Being
The Four Constituents of Well-Being

- **Resilience**: the rapidity with which one recovers from adversity
- **Positive Outlook**: the ability to see the positive in others
- **Attention**: “a wandering mind is an unhappy mind” (Gilbert’s research at Harvard)
- **Generosity**: the practice of generosity and altruism activates circuits in the brain that are key to fostering well-being

Credits:
2) [https://centerhealthyminds.org/join-the-movement/why-well-being-is-skill](https://centerhealthyminds.org/join-the-movement/why-well-being-is-skill)
Well-Being

The neural circuits that underlie Resilience, Positive Outlook, Attention, Generosity and Altruism exhibit neuroplasticity.

Each can be shaped and strengthened by training.

Hence, well-being is a skill that can be developed.

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Mindfulness
Mindfulness

- Jon Kabat-Zinn defines mindfulness as “the awareness that arises through paying attention on purpose, in the present moment, non judgmentally.”

- Mindfulness also implies recollection of qualities and values that we deem important, and that we want to remain mindful of in our every day lives.

- In Asian languages, the word for mind and the word for heart are the same, hence mindfulness is heartfulness. You could think of mindfulness as wise and affectionate attention.
Mindfulness

Mindfulness requires **attention stability**

Daniel Goleman’s Three Focuses:

- **Inner focus**: requires attention to become aware of our inner world of feelings, thoughts, and physical sensations

- **Other focus**: requires attention to notice other’s presence, feelings, needs, etc; it constitutes the basis upon which empathetic concern or compassion may develop

- **Outer focus**: requires attention to the way systems interact and create webs of interdependence, thus systems thinking rather than the simplistic “A” causes “B”, thereby allowing a broader prospect perception of phenomena and feelings

Cultivating Emotional Balance (CEB) course:
Credits: Drs. B.A. Wallace and P. Ekman

UICOMP course: Dr. Marcelo Bento Soares
The Four Applications of Mindfulness
- Cognitive Balance -

- Mindfulness of the Body
- Mindfulness of Feelings
- Mindfulness of the Mind
- Mindfulness of Phenomena

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Mindfulness – a Path for Recovery

Vasanthi Jayaraman, Ph.D.

Professor, 2016 McGovern Scholar, 2016 Co-Chair Biophysical Society Annual Meeting
Department of Biochemistry and Molecular Biology
UTHHealth Medical School
Mindfulness for burnout

Vasanthis Jayaraman
Professor and McGovern Scholar
University of Texas Health Science Center at Houston
Wise men learn from other’s mistake
Fools learn from their own
$@%%% fools never learn

- Improvised version of Otto Von Bismark
Common misconceptions about mindful meditation

- Mindful meditation means going into a trance.
- Meditation is running away from reality.
- A couple of weeks of meditation and all my problems will go away.
My meditation app is stressing me out. Why is mindfulness so maddening?

I inhaled deeply. I exhaled, too. Out. Out. Out. I knew it was only a matter of time before I failed her again — and myself in the process. But at least I’m learning to fail my meditation app mindfully.

Mindfulness and Yoga

Kenton J. Swartz, Ph.D.

Senior Investigator
Molecular Physiology and Biophysics Section
The National Institute of Health – NINDS
Mindfulness programs offered at different universities:

- **Cognitively Based Compassion Training – CBCT®:**
  consists of a structured and progressive series of contemplative exercises. Practitioners begin by stabilizing attention and developing present-moment awareness (Modules I and II) and then use analytical practices to increase well-being and unbiased compassion toward others. (Modules III – VI). Offered at Emory University, University of Illinois
  [https://tibet.emory.edu/cognitively-based-compassion-training/](https://tibet.emory.edu/cognitively-based-compassion-training/)
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  Offered at University of Illinois
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- **Compassion Cultivation Training – CCT:**
  A compassionate attitude can greatly reduce the distress people feel in difficult situations and can become a profound personal resource in times of stress. Compassion Cultivation Training (CCT) is an 8-week educational program designed to help you improve your resilience and feel more connected to others—ultimately providing an overall sense of well-being.
  Offered at Stanford University
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- **Mindful Self-Compassion – MSC:**
  An eight-week program to teach self-compassion skills in daily life, has been developed by Kristin Neff, Ph.D., who is widely recognized as one of the world’s leading experts on self-compassion
  [https://self-compassion.org](https://self-compassion.org)
Literature:

CEB citation:


Wellbeing:


https://centerhealthy minds.org/join-the-movement/why-well-being-is-skill

CBCT citations:


*———.* 2015a. “Erratum to: Feasibility of Cognitively-Based Compassion Training (CBCT) for Breast Cancer Survivors: A Randomized, Wait List Controlled Pilot Study.” *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer* 23 (12): 3609–11.


Effectiveness of the Cognitively-Based Compassion Training (CBCT)

**IL-6**

**Cortisol**

CBCT and Psychosocial Stress in College Freshmen

Pace et al. Psychoneuroendocrinol 2009; 34:87-98;
Pace et al. Psychoneuroendocrinol 2010; 35: 310-15
Mindful Self Compassion
Dr. Kristen Neff: 3 Elements of Self-Compassion

Self-Kindness: Understanding, not punishment

Sense of Common Humanity: Everybody goes through this

Mindfulness: Neither ignoring nor exaggerating feelings of failure

https://self-compassion.org
Introspective Vision

Mindfulness requires introspective vision, a vigilance to notice when attention deviates from the object of focus, so that attention can be brought back to the chosen object. Benefits include:

- Impulse control: ability to resist from engaging in passing thoughts and emotions
- Cognitive control: discernment to let go of passing thoughts and bring attention back to the chosen object
- Resilience: the ability to return attention to the chosen object rather than “getting stuck” on destructive emotions builds resilience

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Definition of Emotion

✧ Emotion is a process, a particular kind of automatic appraisal influenced by our evolutionary and personal past, in which we sense that something important to our welfare is occurring, and includes a set of physiological changes and behaviors that begin to deal with the situation.

✧ In particular, emotions are thought to have arisen because they efficiently coordinate diverse response systems, thereby helping us respond to important challenges and opportunities.
Constructive and Destructive Emotions

- Constructive emotions are emotions that are conducive to our own and others’ happiness, and further our cooperation and collaboration.

- Destructive emotions are regrettable emotions that are incompatible with our own and others’ happiness.
Pain is Inevitable, Suffering is Optional

- Emotions, when experienced with the wrong intensity and duration may become destructive, i.e. conducive to behavior that is harmful/unhealthy/non-constructive to self and others

- This is a vulnerability that we all share
Anchoring your thoughts

A. Be AWARE - when you feel the body sensations that Alert you of a potential hijack.

B. Bridging
1) Breathing (extended exhale)
2) Come to Your Senses
3) Label Thoughts
4) Mapping

C. CALM — calm your mind/body state so you can identify STORY and consider Choosing to Change your STORY.

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Pain is Inevitable, Suffering is Optional

- Cognitive balance is therefore very important
- Cognition is the process of perception and knowing
- An accurate ascertainment of reality (cognitive balance) is key to the attainment of conative balance (without idealizations etc), as it is the cultivation of loving-kindness, compassion, empathetic joy and impartiality

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The Four Applications of Mindfulness

- If we really want to understand our experience of suffering then we must look within.

- We can all see that challenging life circumstances affect people in many different ways. This suggests that it is not the experience itself that makes us suffer, but it is in how we choose to relate to it.
The Four Applications of Mindfulness

If we begin to understand that the experience of suffering is less about what is happening to us and more about the state of our mind, we can then take the next step of clearly identifying how the mind can distort our perception causing internal dissatisfaction and uneasiness.

To explore this process we can engage in a collection of practices called the Four Applications of Mindfulness.
Mindfulness exercise
Acknowledgements:

- Marcelo Bento Soares Ph.D.
  Senior Associate Dean for Research
  Professor and CBP Department Head
  University of Illinois College of Medicine Peoria
  Cancer Biology and Pharmacology

- Debra Disney, MSEd, LCPC
  Director of Center for Wellbeing
  University of Illinois College of Medicine Peoria

- Vasanthi Jayaraman, Ph.D.
  Professor, Department of Biochemistry and Molecular Biology
  UTHealth Medical School

- Kenton J. Swartz, Ph.D.
  Senior Investigator, Molecular Physiology and Biophysics Section
  The National Institute of Health – NINDS

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Sarah Bondos, Susy Kohout, Emily Mace, Edith Sanchez, Eleonora Zakharian
Questions?

Can’t find program in your institution/area?
Contact me for further guidance at:
zakharel@uic.edu

Thank you!