

# Mental Health in Academia

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ASTR 8500

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~75%

Source: *Nature* PhD Survey 2019

Are at least somewhat satisfied with their decision to pursue a PhD.

# SUSTAINED SATISFACTION

A majority of respondents are still glad they decided to pursue a PhD, although the attitudes of some have worsened over time.

**Q: How satisfied are you with your decision to pursue a PhD?**

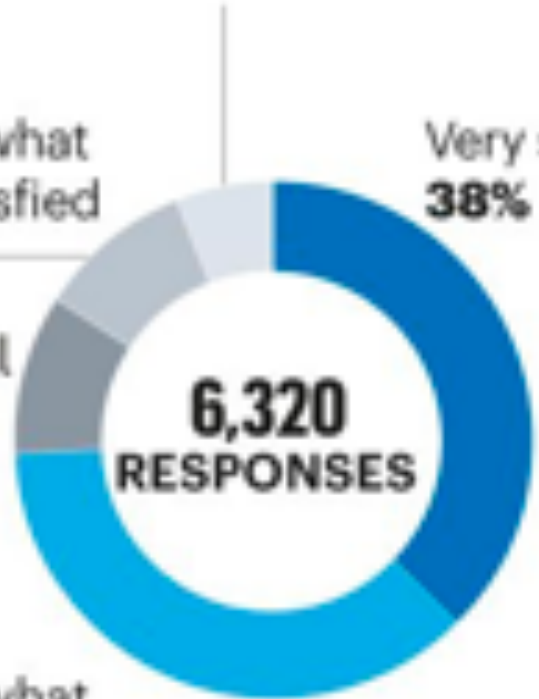
Very dissatisfied **6%**

Somewhat dissatisfied **10%**

Neutral **10%**

Somewhat satisfied **37%**

Very satisfied **38%**

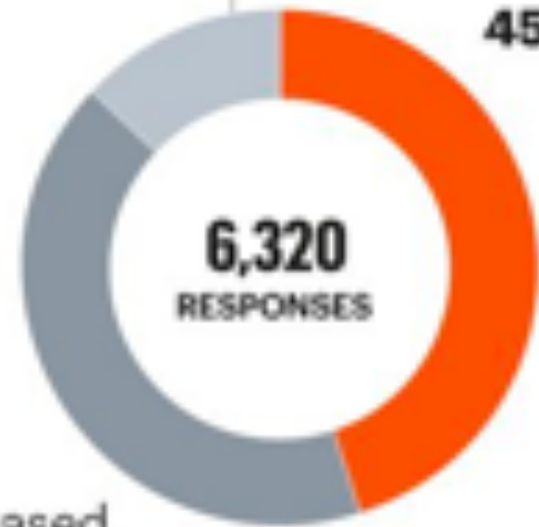


**Q: Since the start of your graduate school experience, has your level of satisfaction increased, worsened or remained the same?**

Neutral **13%**

Worsened **45%**

Increased **42%**





26%

Source: *Nature* PhD Survey 2019

Feel program  
has been  
preparing them  
very well for  
satisfying  
careers.

41% / (39%)

Source: Evans et al., 2017

Experience moderate to severe symptoms of anxiety/ (depression).

DIFFICULT DAY YET I  
MAINTAIN  
COMPOSURE

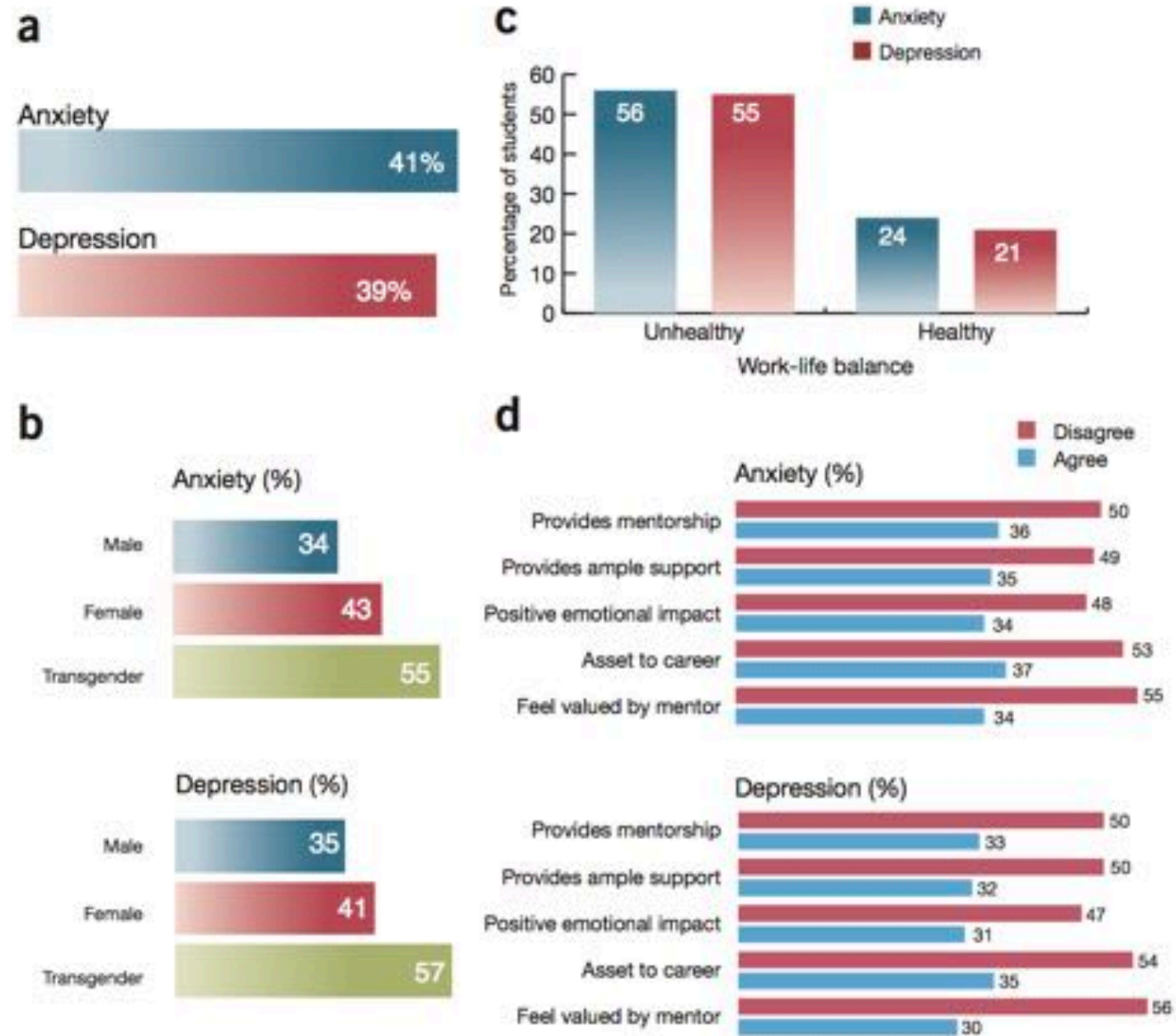


HA THIS SMALL SETBACK  
AMUSES ME



NATHANWPYLE

# Anxiety and Depression



**Figure 1** The prevalence of anxiety and depression within the population of graduate students studied. (a) Overall prevalence. (b) Prevalence of anxiety and depression by gender. (c) Effect of perceived work-life balance. (d) Effect of relationship with mentor (see **Supplementary Data**).



# Some other sobering numbers

- 43-46% of science graduate students depressed (Berkeley, 2014)
- 50% (23%) of graduate students under more than average (tremendous) stress (University of Arizona, Tucson, 2015)
- 32% of PhD students at risk of having or developing a psychiatric disorder (Belgium, 2017)
- 55% of higher ed. professionals describe themselves as stressed (UK, 2019)
- 86% of graduate students reported marked levels of anxiety (UK, 2019)
- 50% of scientists described struggles with depression/anxiety (International, 2020)

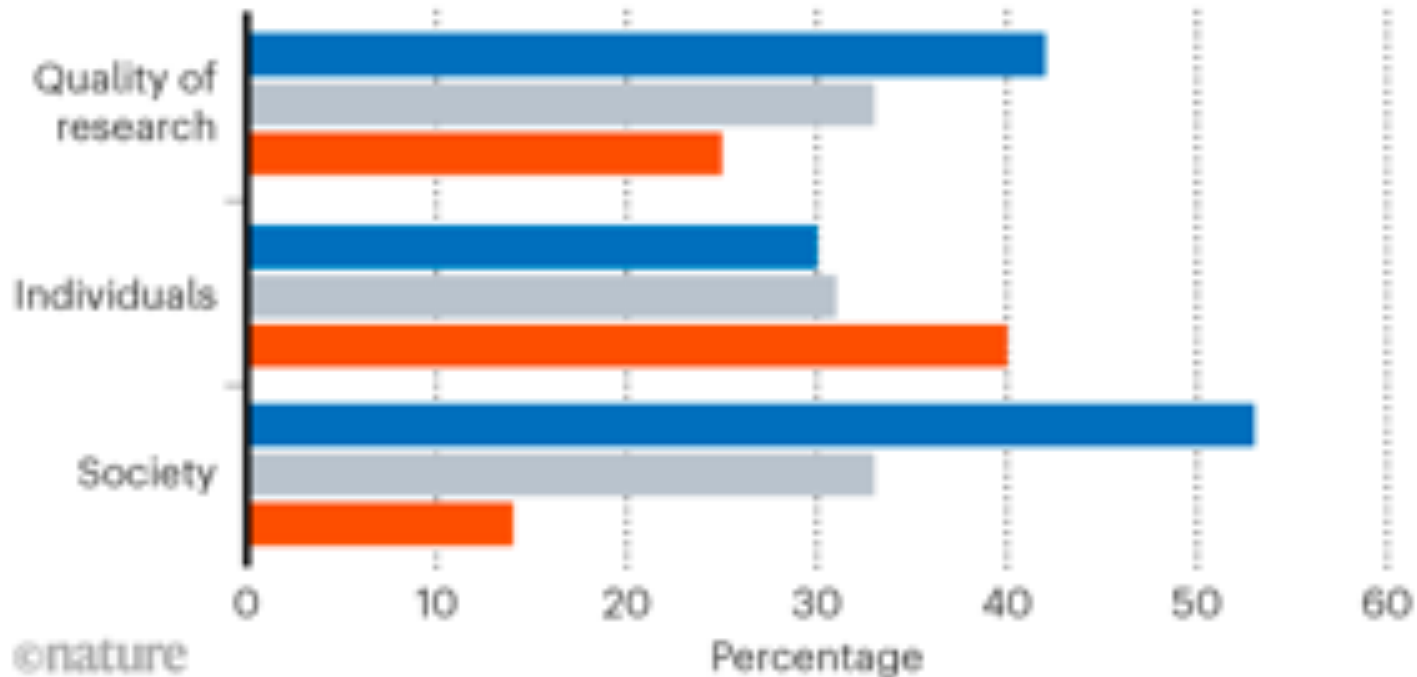
# COST OF THE CULTURE

In a global survey of around 4,000 researchers, 55% said that they had a negative impression of scientific working cultures. One-quarter said that the culture damaged the quality of research.

## How would you describe research culture?

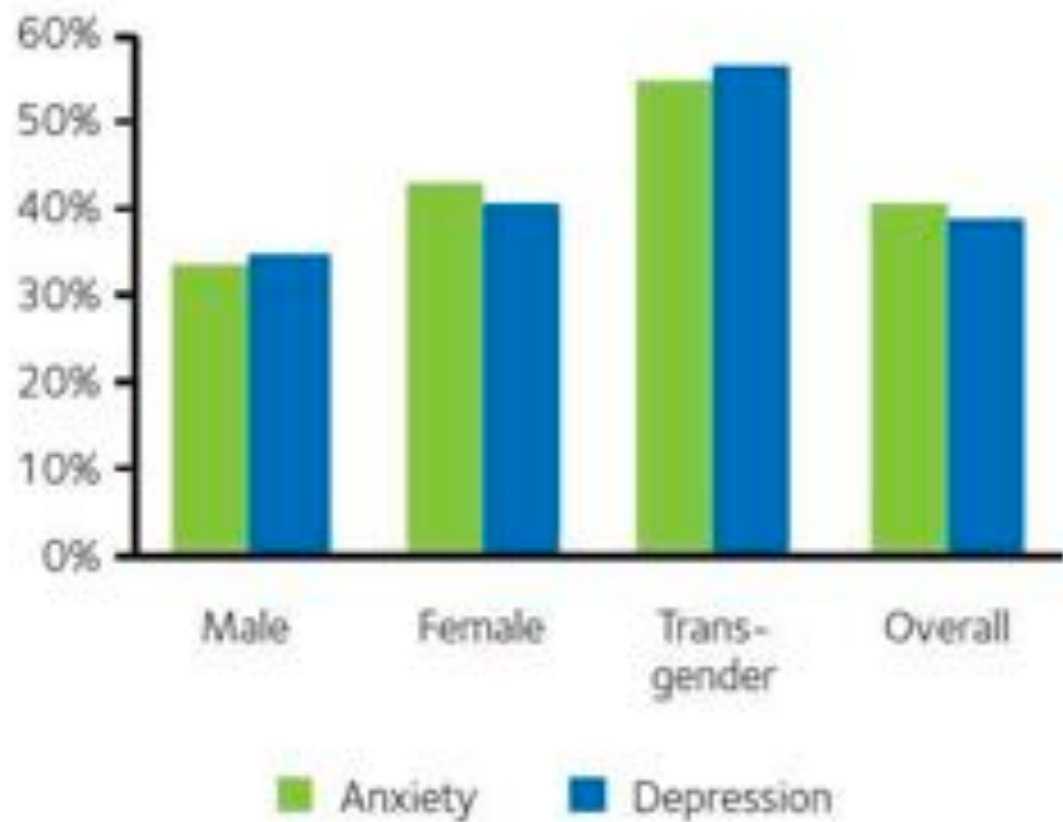


## What effect does the culture have on research quality, individuals and society?

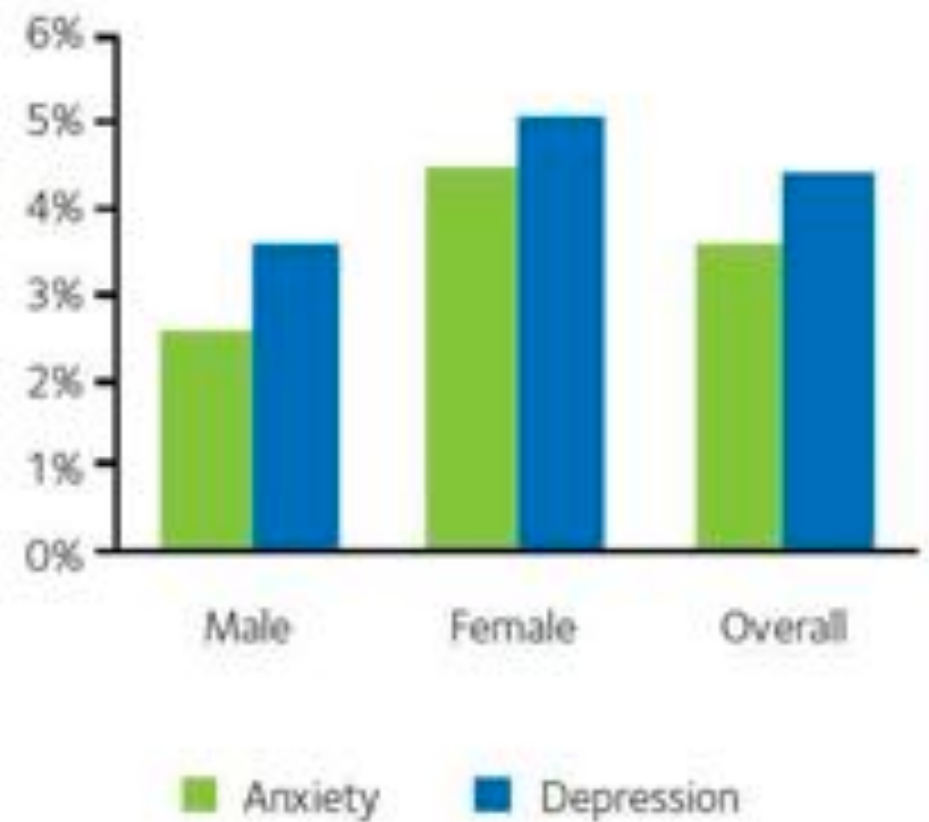


Source: What Researchers Think About the Culture They Work In (Wellcome, 2020)

A.



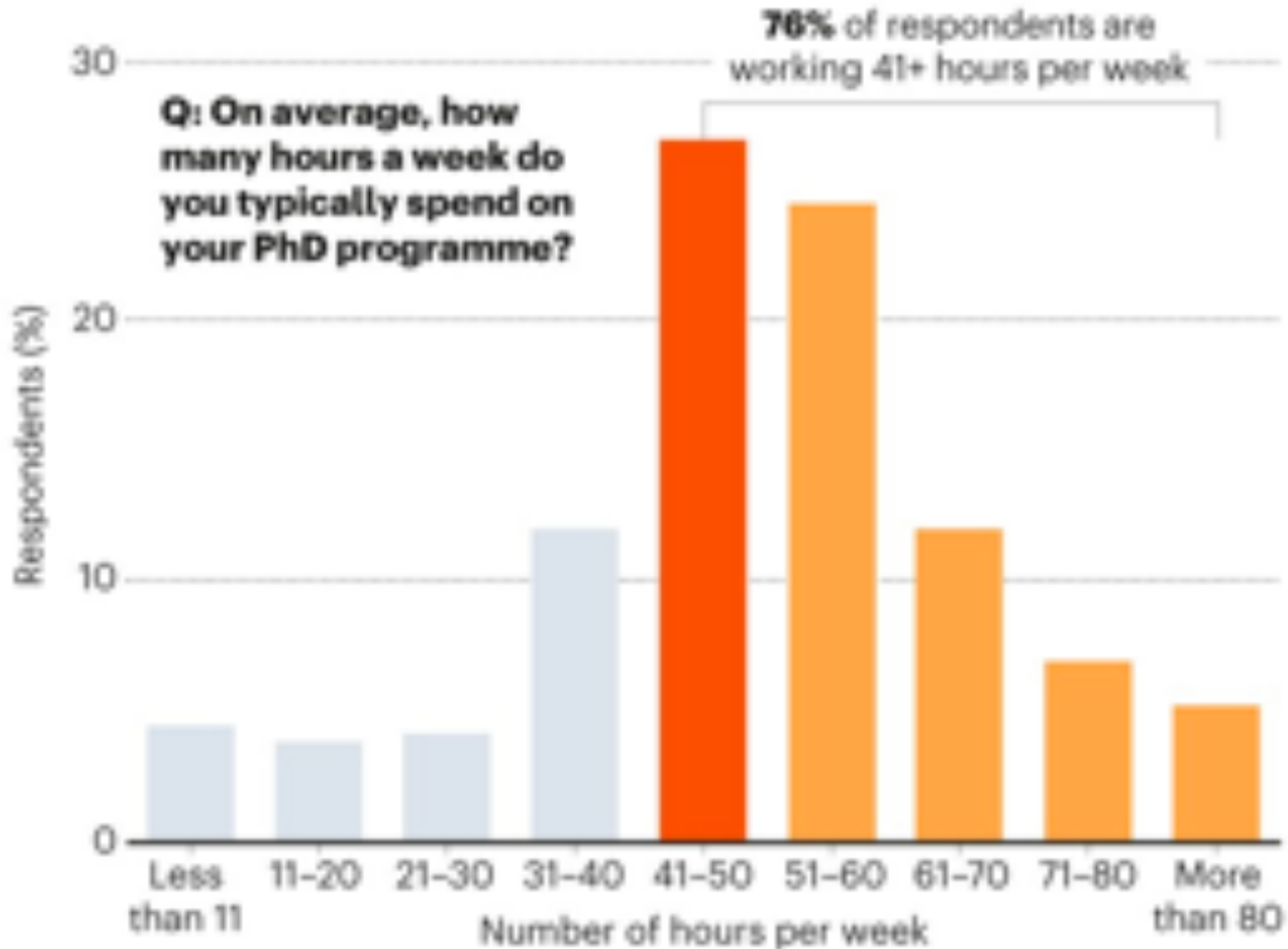
B.



Prevalence of anxiety and depression in A. graduate trainees (Evans et al., 2018) and B. the global population (WHO, 2017).

# OVEREXTENDED AND STRESSED

Long hours in the laboratory and other demands have taken a toll on PhD students' well-being and mental health.



Source: Nature PhD Survey 2019



36%

Sought help for  
anxiety or  
depression  
caused by PhD  
studies

Source: *Nature* PhD Survey 2019

# Takeaways from these studies

- Mentorship is important
- Lay the groundwork with your advisor early on
- You can feel stressed yet still be satisfied with your program
- Post-docs, faculty, tenure-track academics struggle as well

# Actions Being Taken

- International Conference on the Mental Health & Wellbeing of Postgraduate Researchers in Brighton, UK, 2019
- Council of Graduate Schools 22-month initiative: “Supporting Mental Health and Wellness of Graduate Students”
- New holiday policy at Boston University
- Adoption of a “Mental Health Bill of Rights and Responsibilities” at Vanderbilt University

**~70% / (95%)**

Source: Vaughn et al. 2019

Experience  
imposter  
syndrome  
among general  
population  
(female  
academics).

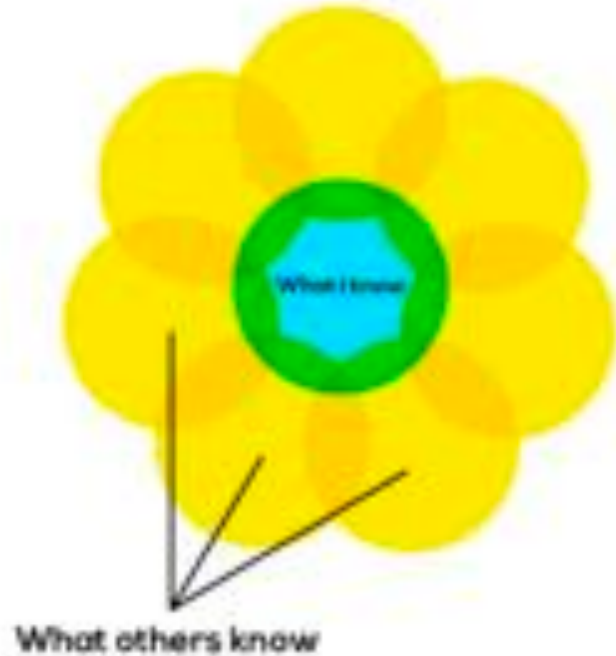


# Imposter Syndrome/Phenomenon

*Imposter Phenomenon*



*Reality*



*Imposter phenomenon*

Source: Astrobites. Images adapted from those by David Whittaker and Frankie Mastrangelo.

# How to combat the Imposter Syndrome

- Recognize there will be sporadic failure
- We tend to trivialize our own achievements
- Support those around you who doubt themselves
- Have some trust in the system
- Challenge behaviors that empower self-doubt





~40%

Source: *Nature* **563**, 616-618 (2018)

Have witnessed  
or heard about  
bullying to  
someone else.

# Bullying in Academia



TOM GAULD for NEW SCIENTIST

# Bullying in Academia

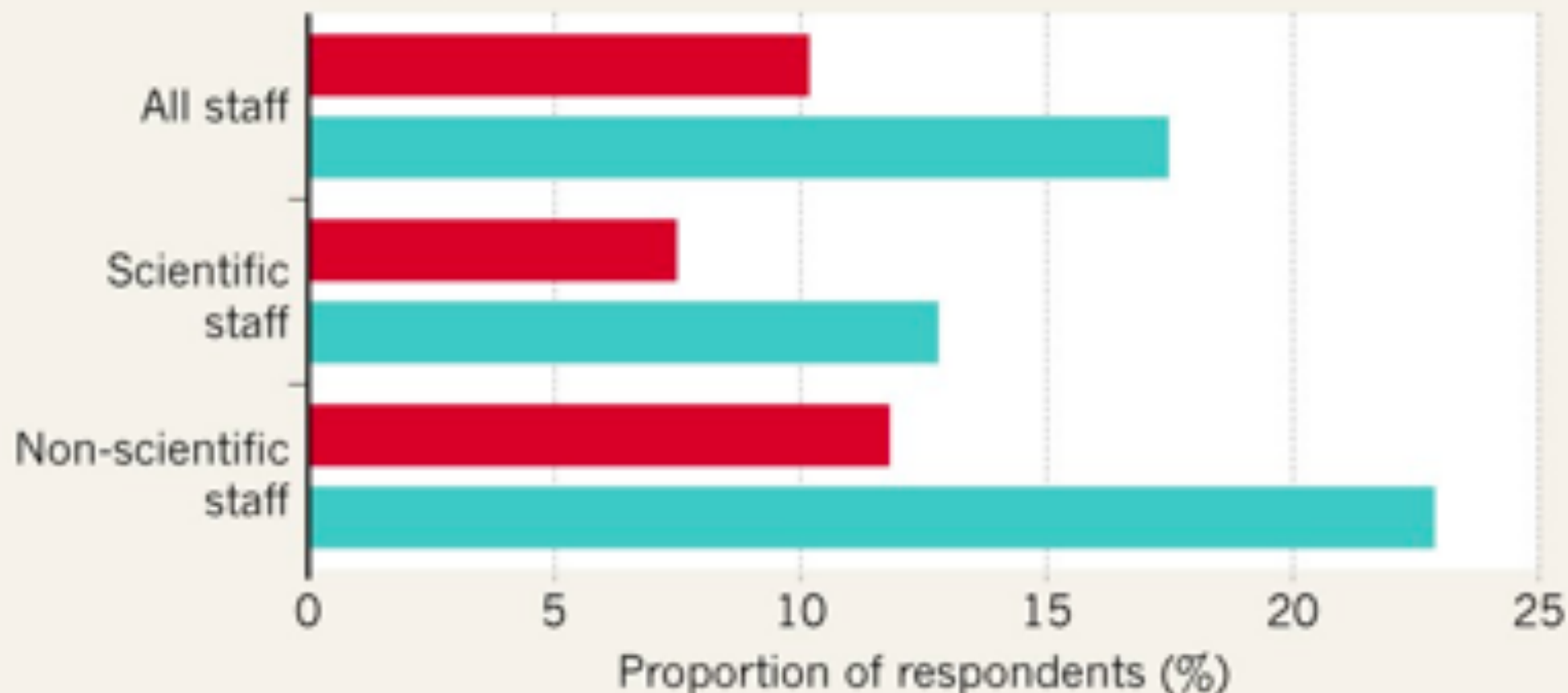
- Having your opinions ignored
- Being publicly humiliated/shouted at
- Having your work undermined
- Having necessary information withheld

## WORKING CULTURE

The Max Planck Society in Germany conducted a huge social study of its staff and received more than 9,000 responses. The results will inform the development of policies on workplace issues including bullying.

■ In past 12 months   ■ Longer than 12 months

### *Have you been bullied?*





# Bullying in Academia: Supervisors

- Being overbearing
- Assigning impossible workloads
- Giving unachievable deadlines
- Not being interested in helping advisees grow professionally
- Persistent demeaning and devaluing treatment

# What to do about it

- Develop and include policies that prohibit bullying
- Apply these consistently and show the consequences
- Offer training to those with management roles



~40%

Source: *Nature* PhD Study 2019

Are unsatisfied  
with their work-  
life balance.

# Work-Life Balance

# ACADEMIA

PRO

YOU CAN WORK WHENEVER  
YOU WANT! EVERY DAY  
IS A SATURDAY!



CON

YOU WORK ON SATURDAYS.



3/8/16 Cullen © 2017

[WWW.PHDCOMICS.COM](http://WWW.PHDCOMICS.COM)

# Points to Consider

- Stress leads to decreased productivity and creativity
- Being a researcher is a single facet of your personality
- PhD programs shouldn't be thought of as matters or survival
- Our self-worth lies outside of our work

# Work-Life Balance Tips

- Get into exercise, yoga, team sports
- Prioritize sleep
- Restructure day to prioritize activities that make you most productive
- Read books about how the mind works
- Work smarter, not harder
- Surround yourself with people who realize balance is important

# Work-Life Balance Tips for the Institutions

- Enable time away from lab
- Create external incentives/validation
- Connect grad students with the public
- Expose students to non-academic job opportunities
- Facilitate research into grad student wellness



# TIPS FOR SELF-CARE DURING YOUR DAY IN LAB

Change of scenery



Move around



Socialize



Practice Mindfulness



Refuel



Journaling



Working from home during COVID-19



imgtp.com

THIS IS FINE.



No shortage of work.

# Some Tips for Mental Health During the Pandemic

1. Manage your expectations
2. Proactively manage your stress threshold
3. Know your red flags
4. Routine is your friend
5. Be compassionate with yourself and others
6. Maintain connections
7. Manage uncertainty by staying in the present

# Resources

- Advice from PhD students for PhD students: <https://www.york.ac.uk/research/graduate-school/support/survive-your-phd/>
- Astrobites Tips: [https://astrobites.org/2019/08/23/mental-health-in-grad-school/?fbclid=IwAR3IRT2B8w8cw\\_La6ozWao49K-\\_3Mm8QE9GKipZZTAO7jdMtkmqFK4EzJR8](https://astrobites.org/2019/08/23/mental-health-in-grad-school/?fbclid=IwAR3IRT2B8w8cw_La6ozWao49K-_3Mm8QE9GKipZZTAO7jdMtkmqFK4EzJR8)
- PhD Balance: <https://www.phdbalance.com/>
- UVA CAPS: <https://www.studenthealth.virginia.edu/caps>
- SilverCloud: <https://www.studenthealth.virginia.edu/silvercloud>

**“You are a person long before  
you’re a PhD researcher.”**

- Robert Seaborne

Questions?

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