

Perspectives on Mental Health as a Graduate Student

By Willow, Charlotte, and Konrad





Outline

- Prevalence of poor mental health in graduate programs
 - Motivation for this talk
 - Data and statistics
 - Symptoms
- Resources available to students
 - Professional help
 - Day to day habits
- Our personal experiences with said resources
 - What we've experienced
 - How we've dealt



Statistics

- “Graduate students are six times more likely to experience depression and anxiety than the general population” [1]
- “One in two PhD students experiences psychological distress; one in three is at risk of a common psychiatric disorder.”[2]
- Other formal and informal studies of graduate students have found that nearly half have symptoms aligning with depression; the biggest cause is difficulty taking care of family needs because of the demands of work.[3]

1)Evans et al, 2018 Nature Biotechnology <https://doi.org/10.1038/nbt.4089>

2)Levecque et al, 2017, Research Policy, <https://doi.org/10.1016/j.respol.2017.02.008>

3)Welsh, Andrea 2017, Physics Today <https://DOI:10.1063/PT.6.3.20170531a>



Statistics

Symptom	Prevalence (%)
Felt under constant strain	41
Unhappy and depressed	30
Lost sleep over worry	28
Lost confidence in self	24
Felt worthless	16
Could not make decisions	15
Reported at least two symptoms	51
Reported at least four symptoms	32

Many of the nearly 3700 PhD students surveyed recently in Belgium reported symptoms associated with mental health problems. Source: K. Levecque et al., *Research Policy* **46**, 868, 2017.



Symptoms of Depression

- Feeling overwhelmed
- Procrastination
- Disordered sleep (insomnia or too much sleep)
- Disordered eating (not eating or bingeing)
- Indecision, feeling distracted
- Low self esteem
- Chronic fatigue
- Aches, pains, and/or headaches
- Stomach Pain
- Feeling empty or unable to feel
- Feeling as though you no longer find pleasure in things you used to enjoy



Symptoms of Anxiety

- Feeling nervous or restless
- Rapid breathing/hyperventilation
- Shaking or trembling
- Difficulty sleeping
- Stomach cramps or GI problems
- Numbness in limbs
- Catastrophic feelings (i.e. feeling like you are dying or something terrible is about to happen)
- Feelings of avoidance and procrastination
- Inability to relax or enjoy quiet time
- No tolerance for uncertainty
- Choking feelings



Resources available to graduate students for free

Counseling, ADAP, and Psychiatric Services (CAPS)

Phone: (848) 932-7884



Resources available to graduate students through health insurance

Therapists (\$15 - \$40 per session)

PsychologyToday

Your health insurance list of providers



Crisis Resolution

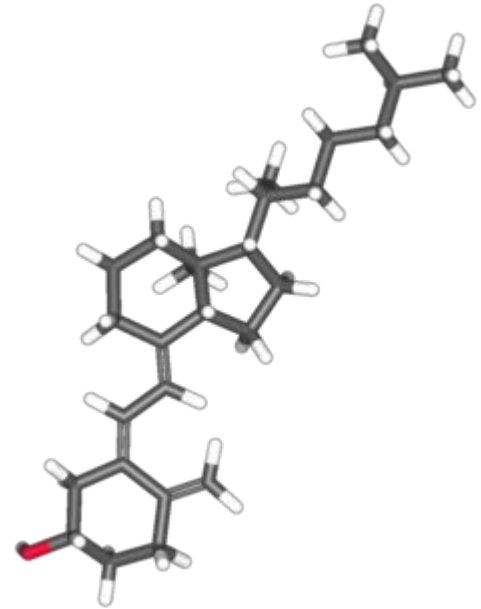
- **Suicide Helpline: 1-800-273-8255**
 - NJ Suicide Prevention Hotline at **1-855-654-6735**.
 - Acute Psychiatric Emergency Services at **732-235-5700**.
- **Rutgers Specific Crisis**
 - For patient service requests for any level of care (intensive outpatient, outpatient, partial hospital, crisis prevention, in-patient services, etc.), call **1-800-969-5300**
 - **Peer Support lines: go to**
https://ubhc.rutgers.edu/call_center/peer_support/index.html



Willow Kion-Crosby

Emotional and Biochemical Wellbeing

- Rutgers health services: Hurtado Health Center
- Vitamin D levels in particular (because we're all deficient..)
 - [1] Patients taking high doses saw an improvement in their depressive symptoms.
 - [2] "The results of this large population-based study show an association of depression status and severity with decreased serum 25(OH)D levels..."
- Not known why there a strong association with mental health.
 - Vitamin D also activates genes which regulate neurotransmitters like dopamine and serotonin.
 - And many more genes...

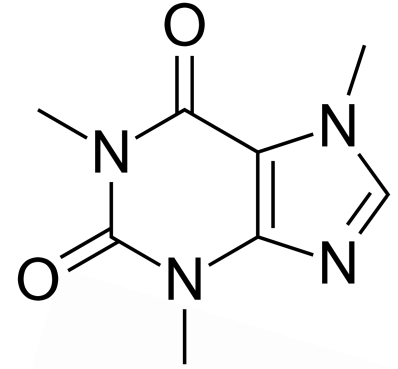




Caffeine and Wellbeing

Caffeine is great for boosting cognitive performance and enhancing memory [1], and might make you live longer [2], however...

- Relationship with serotonin (not just a stimulant)
- “The moderate and high consumer groups combined reported significantly higher trait anxiety and depression scores when compared with abstainers. The high consumer group also reported significantly higher levels of symptoms of caffeinism, higher frequency of psychophysiological disorders, and lower academic performance.” [3]



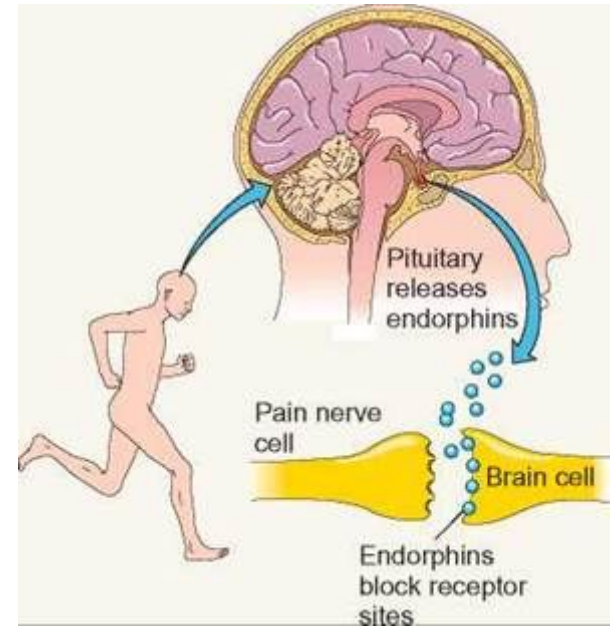


How to make endorphins

A natural response to stress and pain, and your body tends to overdue it.

“The presented evidence suggests that exercise and physical activity have beneficial effects on depression symptoms that are comparable to those of antidepressant treatments.” [1]

“PE [physical exercise] determines positive biological and psychological effects that affect the brain and the cognitive functioning and promote a condition of wellbeing. PE plays an important role in counteract normal and pathological aging. Recent evidences have shown that PE triggers potent neuroplastic phenomena, partly mediated by epigenetic mechanisms.” [2]



1) Dinas et al. 2011, Irish Journal of Medical Science doi: 10.1007/s11845-010-0633-9

2) Mandolesi et al. 2015, Frontiers in Psychology doi: 10.3389/fpsyg.2018.00509



Effects of stress in the form of lowered body temperature?

“To test the hypothesis, an approach to treating depression is proposed that consists of adapted cold showers (20 °C, 2–3 min, preceded by a 5-min gradual adaptation to make the procedure less shocking) performed once or twice daily.

In summary, based on the limited evidence, cold hydrotherapy appears to cover many of the symptoms that are used for diagnosis of depressive disorders; however, the method may not be effective for some symptoms, such as ‘markedly diminished interest in previously enjoyed activities’, ‘weight gain and an increase in appetite’, and ‘diminished ability to concentrate’ ” [1]





Charlotte Olsen

Hi! I'm a 2nd year who studies galaxy evolution through their history of star formation!

My brain does not make the chemicals that it should.

Let me tell you what that's like for me, and how I cope.



Things That Work for Charlotte

- Maintenance is important for everything.
 - If you don't perform routine maintenance on your car it will break down!
- Mental Hygiene is preventative
 - Proper nutrition
 - Proper sleep
 - Exercise
 - Mindfulness
 - Adherence to existing medication

More Mental Hygiene

- Maintaining healthy social interaction
- Breaking large projects into small tasks
 - Lists and productivity techniques
- Taking time for things which make you happy (self care)
 - Make a list NOW of things that you like to do, and use it when you start feeling overwhelmed

stressful day TO-DO LIST



Dani DiPiero '17

Productivity Hacks

- Keep a todo and a done list to show progress
- Bullet journal or Panda Planner
- Celebrate achievements through gratitude lists (even when you don't want to)
- Take frequent breaks
- Pomodoro technique
 - 25 minutes of work
 - 5 minute break





There's an App for that: Free mental health apps

- Pacifica
 - Very involved. Allows you to journal along with tracking your mood.
- Moodpath
 - Prompts you with simple questions and mood trackers 3 times a day and allows you to track
- Calm Harm
 - Designed for self harm, but really good for anxiety or any heightened emotional state!
- Insight Timer
 - Meditation and Breathing
- Habitica
 - Rack up XP by completing daily tasks.
- Breathe+
 - Breathing exercises



Konrad Genser

Guy with beard, look at him. He was too lazy to make slides.