Mental health in academia: what's it all about?

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Should your PhD sacrifice your mental health? Seems like a silly question to ask in 2020, maybe even rhetorical to some. However, a great deal of postgraduate researchers experience mental health issues as an unwanted by-product of their PhD. At what point does this become too much? Mental health has become one of the biggest issues put under the public spotlight in recent years, so why do we still have this archaic culture in academia? Maybe it is time for a change in how we think about what *is* and *is not* acceptable, and what resources are available to those of us who find ourselves struggling with is not acceptable, and what resources are available to those of us who find ourselves struggling with our mental health during our research.

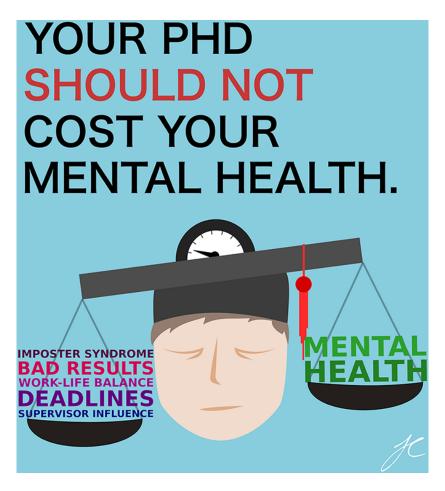
We all remember when we were fresh-faced, straight out of our undergraduate degrees, our certificate bristling with pride; the culmination of 3 to 4 years of hard work ends with the fated question, 'What do I do with my future?' For many, this is a route straight into industry to earn some serious money, maybe for the first time. Some of us weren't done with research; our dissertation projects just whetted the appetite, leaving us wanting more. Others had a clear idea of what they wanted, and a PhD was a step further on that journey. But some of us, let's be honest (myself included), saw it as an opportunity to delay having to decide what it is we wanted to do with our lives; and you know what? That's completely fine. Whatever your reason, we all had the daunting task of deciding what group to join. For many, we wanted to venture into pastures green, a change of scenery, maybe even a new university. For others, we'd had a blast working in our undergraduate labs and were lucky enough to secure a position with our old principal investigators (PIs). Did any of us know what we were signing up for? Yes, you had heard rumours about what PhD life was like, but did you truly understand what you were undertaking? How many hours is acceptable? Is my PI a good PhD supervisor? Is my project going to work well? For many, these questions were left unanswered, and students didn't know where to look for answers. Often, by the time you are able to find definitive answers, it is sometimes too late.

Nature Biotechnology published an article in 2018, 'Evidence for a mental health crisis in graduate education, in which they performed research on over 2000 postgraduate students worldwide and asked them about their mental health. Their results showed that 41% of the graduate students surveyed identified as having anxiety, with 39% identifying as being depressed. This statistic is beyond shocking. If we were to assume that this data represents the postgraduate community as a whole, then more than one in every three PGR students would identify as being depressed, compared with one in every fifty of the general population. This statistic alone should be enough to raise alarm bells, so let's discus some of the key issues surrounding mental health in academia.

Work-life balance

This is a tale as old as time; no matter what your job is, work-life balance is probably regarded as one of the major influencers of people's mental health. There seems to be so much ambiguity about how many hours constitute 'enough' at the PhD level. I had a friend who secured a PhD at a southern university that 'unofficially' expected you in from 08:00 until 19:00, Monday to Friday. Suffice to say, he eventually decided on a different career path after a few months, and who would have blamed him! § Your working hours are largely up to the discretion of you and your supervisor, but most funding bodies expect you to work a 37- hour week; this is the normal Monday to Friday, 9–5 grind. PhD life can't always be 9–5; some days demand a little more of you than those 8 hours, often having to stay late or come in early. That's just part of the deal, but how you balance it is down to you. For example following a particularly long day, you may be able to take those hours out of another day. The problem is, sometimes it's hard to remind yourself that doing that is okay.

In the aforementioned Nature paper, when graduate students were asked to agree or disagree with the statement 'I have a good work-life balance', 52% disagreed with the statement. Everyone's worklife balance is different, but wherever your scales lie, making sure that you maintain them is important for your mental health. If it's socializing with your friends, going to see that new film or spending time with your family, do what you need to do to decompress and enjoy your free time.



My experience: relationship with your supervisor is key

In my opinion, the relationship between student and supervisor is a largely over-looked influence on PhD mental health, but one that is the most controversial to seek help for. The *Nature* survey found that, of those students who identified as having anxiety/depression, 50% did not agree that their supervisor provided 'real' supervision. The majority expressed the opinion that their supervisors did not provide 'ample support' or 'good mentorship'.

My experience on this during my PhD has been varied – I had three supervisors for my project, one primary and two secondary, and all of them had completely different approaches to supervision. I recently handed in my PhD thesis, and in the last meeting before my submission my primary supervisor asked me, 'how could I have been a better supervisor?' When he asked me this question, I was taken aback – it was a loaded question. He had always had a very busy schedule but was always willing to meet or call should I need some guidance. No PhD supervisor relationship is plain sailing all the time, just like any other professional relationship, but that doesn't mean it cannot be improved upon. In my 3-year project, we had butted heads a few times, but

he had always made it clear what was important in my development as a scientist. I gave him a few suggestions, but the honest answer to his questions was that he had tried his best and I feel that our working relationship ended on a high point. I had a lot of contact with one of my secondary supervisors, and he was a great supervisor. He always had his door open to lend an ear and made sure you felt confident in where your project was going, even when things were bad.

Friends of mine, both former and current PhDs, really opened my eyes to different kinds of supervisors, ranging from supervisors who were too absent to supervisors who constantly micromanaged. Some had good working relationships with their supervisors, and some didn't at all. The way an academic's reputation is viewed means they don't always have the best interests of their PhD students in mind.

There should be greater infrastructure in place by which academics are assessed on their ability to exert a positive impact on their PhD students' development, which doesn't focus on how much funding they pull in or the frequency of their publications. Now, in practice, this may seem problematic, but an academic's career is bolstered by the work of his or her students. Therefore, their skills as supervisors should intrinsically be tied to their notoriety in their field. If PhD students are required to give in-depth feedback about their project supervision at the end of their project, likely after the viva stage, this assessment could be used when considering how an academic's career progresses.

In any case, you shouldn't be afraid to seek help and advice when you are having issues with your PhD supervisor. It may seem awkward, as sometimes you may feel there is no anonymity, especially in a small research group, but it is more important that you are getting the most out of your studentship. Make sure you take advantage of any opportunity to improve your relationship with your academic supervisor. In most cases, everyone just wants what is best for your development.

Imposter syndrome

This is probably the most famous PhD studentship buzz phrase: 'imposter syndrome'. It is the feeling that you are an imposter, imitating someone who knows more about your work than you do. I'm confident in saying that almost everyone, at some point, experiences imposter syndrome. Personally, I don't think I can recall a time during my PhD when I didn't feel like an imposter, a charlatan masquerading as a microbiologist, fooling all those around me of my competency. That sometimes doesn't go away, but rest assured that most of the time it is misplaced. You

have worked hard to be where you are now, and you have worked hard on your project. Yes, you may have a few gaps in your theoretical knowledge, but you are the expert in the work that *you* have performed. Have confidence in yourself and your work.

There are resources available all over the internet to help deal with imposter syndrome. In fact, there's even an online test that tells you just how badly you have it (http://impostortest.nickol.as/). Sharing your experiences and engaging in a dialogue with people about imposter syndrome will help not only you but also other people. It is a natural part of becoming a professional and something that all of us will face at some point.

The bottom line

Your PhD should not come at the cost of your mental health. Don't get me wrong; your PhD is going to be stressful, and nothing worth having ever comes easy, but it shouldn't cause you severe mental health issues. My PhD has been some of the best years of my life; I have made life-long friends and come out the other end a better person than when I went in. By acknowledging the seriousness of mental health and helping ourselves and each other, we can work towards eliminating its association with academia, because everyone has the right to enjoy their time as a PhD student.

Further reading

- Evans, T.M., Bira, L., Gastelum, J.B., et al. (2018) Evidence for a mental health crisis in graduate education. Nat. Biotech. **36**, 282–284. doi: 10.1038/nbt.4089
- Imposter syndrome test: http://impostortest.nickol.as/
- NHS mental health helplines: https://www.nhs.uk/conditions/stress-anxiety-depression/mental-health-helplines/

Resources

- Your university will have a system in place by which you can speak to a member of staff if you feel you are experiencing poor mental health, either as a by-product of your PhD, from your personal life or both. Make sure you know who your ports of call are and make sure you utilize them.
- Online communities of graduate students exist where people share their stories surrounding mental health in
 academia. Reading those stories and sharing your own may offer a support network for you. The @PhD_Balance
 Twitter feed is an online community that discusses issues surrounding mental health and offers resources to help
 those struggling.
- You can seek advice and guidance on mental health from your GP. The National Health Service offers a number of mental health helplines that can be used to discuss a wide range of mental health difficulties.



Having recently passed his viva, Dr Jack Caudwell is a medical engineer and scientific illustrator based in Leeds, and UK. Born and raised in Nottingham, Jack moved to Leeds in 2012 to start his undergraduate studies, which saw him spend a year studying biochemistry abroad at the University of Massachusetts as part of his International Masters in Chemistry. After graduating in 2016, he started a PhD in medical research towards the treatment of bacterial biofilms. Since getting his PhD, Jack has been working as a medical engineer in electrophysiology whilst spending his spare time doing scientific illustration. Email: jackacaudwell@gmail.com