

# TS6: Stress Management and Mental Health of PhD Students

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#### **Motivation**



#### **Poland**

According to a 2021 report by the National Representation of Doctoral Students (KRD):

- 67% of PhD students experience anxiety symptoms above the normal level.
- Over 73% show symptoms of depression at various severity levels:
  - 12.6% have symptoms of severe depression.
  - 31.4% show signs of very severe depression.
- Symptoms of stress, anxiety, and depression, of varying intensity, occur in nearly 89% of respondents.
- **82.4**% experience exhaustion, and **77.2**% report disengagement from their work, which is indicative of professional burnout.



#### **Motivation**



International studies also reveal alarming statistics:

- A 2021 meta-analysis showed that **24**% of PhD students experience clinically relevant symptoms of depression, and **17**% suffer from anxiety.
- In **Australia** (2024), **45.36**% of PhD candidates met the criteria for moderate to severe depression, and **39.4**% for anxiety.
- In **Belgium** and **Germany**, about **50**% of PhD students report mental health problems, and roughly one in three is at risk of psychological disorders.
- In the **USA**, a 2018 study showed **41**% of PhD students had moderate to severe anxiety, and **39**% experienced depression.
- A survey of 305 PhD students revealed high rates of academic burnout, particularly emotional exhaustion. Another study showed **34.5**% of **Spanish** students suffer from stress, and **42**% from symptoms of anxiety and depression.



#### **Motivation**



#### Highlights

- One in two PhD students experiences <u>psychological distress</u>; one in three is at risk of a common psychiatric disorder.
- The prevalence of <u>mental health</u> problems is higher in PhD students than in the highly educated general population, highly educated employees and higher education students.
- Work and organizational context are significant predictors of PhD students' mental health.









Special Issue: Mental Health in Academia,

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- Understanding and overcoming the mental health crisis in academia
- The mental health pandemic in academia that PhD students should be aware of
- Determining domains of improvement in academic mental health support
- Driving change with data preparing for liftoff of the largest ever benchmark on researcher mental health in Europe
- Institutional Career Development A Model for Improved Academic Mental Health
- When the academic dream turns into a nightmare
- Providing support for researchers and scientists includes good management
- Peer-to-peer coaching: a novel way to tackle researchers' stress
- The Problems of a Postdoc
- Breaking the silence from the top down





**Chronic Stress and Anxiety**. PhD students and postdocs frequently report persistent stress and anxiety stemming from:



- Intense pressure to publish ("publish or perish" culture)
- Uncertainty about career prospects
- High expectations with minimal feedback or guidance
- Isolation due to long hours and solitary research work

These conditions often result in generalized anxiety disorders, panic attacks, and somatic symptoms such as insomnia and gastrointestinal issues.

**Depression and Emotional Exhaustion.** Many doctoral candidates and early-career researchers describe:

- Persistent low mood
- Feelings of worthlessness or failure
- Emotional detachment from their research
- Apathy and lack of motivation

These symptoms are indicative of clinical depression and burnout syndrome, often going undiagnosed due to stigma or lack of access to mental health services.





**Burnout and Cognitive Fatigue.** Burnout is reported as one of the most common experiences, especially in the later stages of the PhD or in successive postdoc contracts. Key features include:



- Emotional exhaustion
- Reduced cognitive capacity
- Decreased sense of accomplishment
- Cynicism and disengagement from academic goals

This often results in reduced productivity, difficulty focusing, and impaired decision-making, which paradoxically increases the pressure to "catch up."

#### **Stigma Around Mental Health:**

- Reluctance to speak openly about struggles due to fear of being perceived as weak or unfit.
- Lack of institutional mechanisms for disclosure or reasonable accommodations.
- Leadership failing to set examples by discussing their own challenges

This silencing culture reinforces the idea that mental illness is a personal failure rather than a systemic issue.

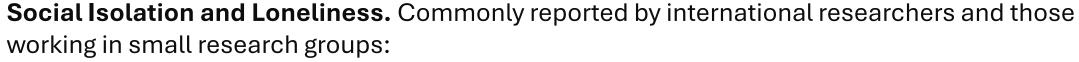




Impostor Syndrome. Both PhD students and postdocs frequently struggle with:

- Feeling like a fraud despite tangible achievements
- Believing they are not good enough to be in academia
- Avoiding opportunities due to fear of being "exposed,"

Impostor syndrome is worsened by hypercompetitive environments and lack of affirmation from supervisors or peers.



- Lack of supportive peer networks
- Cultural and language barriers
- Few opportunities to form meaningful social connections

This isolation often contributes to depression and decreases overall well-being and motivation.







Career Insecurity and Financial Instability. Especially for postdocs, major concerns include:

- Short-term contracts with limited renewal possibilities
- Difficulty in securing permanent academic positions
- Inadequate pay relative to qualifications and workload

These issues lead to chronic uncertainty, financial stress, and even decisions to leave academia entirely due to unsustainable conditions.

#### **Poor Supervisor Relationships.** Many doctoral candidates report:

- Lack of constructive feedback
- Infrequent or one-sided communication
- Supervisors being emotionally distant or overbearing
- Absence of support for non-academic challenges

Poor mentorship is one of the strongest predictors of psychological distress and dropout intentions among PhD students.





## Discussion: Reflecting on Our Own PhD Journeys



- > How did we feel as doctoral students?
- What was the most stressful part of our PhD journeys?
- What kind of support did we receive, if any, and from whom?
- > Did we ever feel close to burnout?
- ➤ How did we recognise it, if at all?



### **Recognizing Burnout in PhD Students**



#### **Key Symptoms of Burnout:**

#### 1. Emotional Exhaustion

- Feeling drained, overwhelmed, unable to cope

#### 2. Depersonalization (or Cynicism)

- Detachment, treating academic work or others with indifference or negativity

#### 3. Reduced Personal Accomplishment

- Feeling ineffective, inadequate, or lacking progress

#### Additional signs in PhD students:

- Chronic procrastination or perfectionism
- Drop in motivation and sense of purpose
- Isolation from peers and mentors
- Somatic symptoms: sleep disturbances, fatigue, headaches
- Loss of interest in research or academic goals



## Supervisor's Role in Prevention



#### **Build a Trust-Based Relationship**

- Regular, open, and non-judgmental communication
- Emotional safety → lower anxiety and perceived isolation

#### **Clarify Expectations and Goals**

- Transparent milestones, timelines, publication planning
- Avoids ambiguity → reduces performance anxiety

#### **Normalize Challenges and Setbacks**

- Discuss failure as part of the research process
- Destigmatize rejection and imposter feelings

#### **Promote Work-Life Balance**

- Model healthy boundaries (email hours, vacation)
- Discourage overworking as a norm

#### **Encourage Peer and Institutional Support**

- Connect students with peers, support services, mental health professionals
- Build a "community of practice" rather than competition

#### **Monitor for Early Signs of Distress**

- Watch for changes in motivation, communication, quality of work
- Ask directly (but sensitively) about well-being



# Discussion: Sharing What Works – How Do You Support PhD Candidates Without Adding Stress?



- ➤ How do you build trust and openness with your students?
- > What strategies do you use to prevent deadline pressure from becoming overwhelming?
- > How do you react when a student is struggling academically or personally?
- > Do you encourage your students to maintain work-life balance? How?
- > Have you changed anything in your supervisory style based on past experiences?
- Which of these practices could be transferred or institutionalized in your department?
- What barriers do you face in implementing these strategies?



### Discussion: Institutional Support is Crucial



#### Is your university offering:

- Psychological counseling?
- Supervisor mental health training?
- Peer mentoring or buddy systems?
- What's missing in your environment?



## Discussion: Case Study 1 – The Silent Student



You notice your PhD student has become withdrawn and avoids meetings.

Their last manuscript was rejected, and their productivity dropped.

They insist "everything is fine."

#### Tasks:

- What might be happening beneath the surface?
- How would you approach this student?
- What support can you offer (or suggest)?



## **Discussion: Case Study 2 – The Perfectionist**



A high-achieving student misses deadlines because they never feel their work is "good enough."

They are extremely anxious and don't accept praise.

#### Tasks:

- How might your feedback or supervision style unintentionally reinforce this?
- ➤ How would you encourage more balanced expectations?
- What messages can help reduce their anxiety?



# Discussion: Case Study 3 – The Disappearing Student

Your PhD student was engaged and productive during the first months. Suddenly, they stopped replying to emails, skipped lab seminars, and failed to submit promised drafts. When they finally reappear, they seem overwhelmed but say, "I just needed to catch up on everything by myself".

#### **Discussion Questions:**

- > What might be happening behind this behavior?
- > How can you open a supportive conversation without triggering defensiveness?
- What kind of support can you offer?



## Discussion: Case Study 4 – The Personal Crisis



Your student informs you they're going through a difficult personal situation (e.g., family illness, divorce, depression). They still want to continue their PhD but are missing deadlines. They say: "I don't want to let you or the team down.,"

#### **Discussion Questions:**

- > How can you respond with empathy while also planning realistically for the future?
- > What resources (e.g., mental health services, leave of absence) could you suggest?
- How can you reassure the student without making them feel guilty?



### **Final Takeaways**



- 1. Burnout is real and preventable. PhD students face intense pressure, and their mental health is at risk. Early recognition and supportive environments can make a huge difference.
- 2. Supervisors shape more than research. Our behavior, feedback, and expectations deeply influence students' confidence, well-being, and academic identity.
- **3. Communication and trust are key**. Foster openness. Make it safe to talk about struggles without fear of judgment or penalty.
- **4. We don't need to be a therapist but each of us can be a safe person**. Know the signs of burnout. Be present. Refer students to professional help when needed.
- **5.** Healthy students make better researchers and better colleagues. Caring supervision isn't a luxury. It's a foundation for sustainable academic work and scientific excellence.



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