Nature's 2017 PhD survey reveals that, despite many problems with doctoral programmes, PhD students are as committed as ever to pursuing research careers.

Science PhD students love what they do — but many also suffer for it. That's one of the top findings from Nature's survey of more than 5,700 doctoral students worldwide.

The survey is the latest in a biennial series that aims to explore all aspects of PhD students' lives and career aspirations. Respondents indicated high levels of satisfaction with PhD programmes overall, but also revealed significant levels of worry and uncertainty: more than one-quarter listed mental health as an area of concern, and 45% of those (or 12% of all respondents) said that they had sought help for anxiety or depression caused by their PhD studies. Many said that they find their work stressful, worry about their futures and wonder whether their efforts will pay off in earning them a satisfying and well-compensated career.

Responses also uncovered a strong, perhaps crucial, connection between a well-matched PhD adviser and the student's success. Good mentorship was the main factor driving satisfaction levels. Most respondents were happy with their adviser, but nearly one-quarter said they would switch advisers if they could.

Mentorship contributed more to respondents' overall satisfaction with their PhD programme than did any other factor. Specifically, guidance from, and recognition by, an adviser proved to be the top determinant.

Yet, a sizeable proportion of survey respondents are unhappy with the mentoring they receive. Beyond the 23% who said they would swap advisers if they could, nearly one-fifth of respondents, or 18%, said that they do not have useful conversations about careers with their advisers — the person who is uniquely well positioned to help doctoral students to identify their ideal career path and learn how to pursue it.

Respondents said that conversations with their supervisor about non-academic careers are notably absent. “My adviser looks down on non-academic jobs and thinks they're only suitable for people who aren't very motivated,” wrote a chemistry student in the United
States in the comments. Around 30% disagreed or strongly disagreed with the statement that their supervisor has useful advice for non-academic careers, about the same proportion as in Nature's 2015 survey of graduate students. Slightly more than half of respondents in this year's survey agreed that their supervisor was open to their pursuing a degree outside of academia, which also echoes findings from the 2015 survey.

To a large extent, students are serving as their own career counsellors. When asked how they arrived at their current career decision, almost two-thirds chalked it up at least in part to their own research on the topic. Just 34% credited advice from their adviser.

Alberto Brandl, a student in aerospace engineering at the Polytechnic Institute of Turin in Italy, knew his co-supervisors before he started his PhD programme. “I hoped they would be great mentors, and I'm very satisfied,” he says. It helped that his advisers were very accommodating when his daughter was born, early in the PhD process. “They said it was a beautiful thing,” he says. “I didn't take much time off, but they told me to take as much as I needed.” He feels that his advisers give him just enough guidance to make his own decisions, instead of dictating every step. “It's the difference between a boss and a leader,” he says. Brandl counts himself fortunate. “I know people who have abandoned their PhDs because of their mentors.”

Perhaps one student, who studies medicine in Israel, summarized it best. “Doing a PhD is hard and frustrating,” wrote the student in the comment section. “But the small successes are worth it all.”

Vocabulary

to commit - здійснити
to pursue - проводити
to reveal – виявляти
to switch advisers – тут: поміняти наукового керівника на іншого
to a large extent – в значній мірі
to be the top determinant – бути головним фактором у прийнятті рішення

mentorship = mentor: a wise and trusted counselor or teacher + ship
(a native English suffix of nouns denoting condition, character, office, skill, etc.: friendship)
doctoral student = PhD student
doctoral programmes = PhD programmes
non-academic career – not belonging or relating to a place of learning esp a college, university, or academy