A young woman contacted me earlier this year to discuss her PhD adviser. He would follow her around the lab, shaming her in others’ presence, yelling that she was incompetent and that her experiments were done incorrectly. She wanted nothing more than to minimize contact with him, but she felt trapped. Starting in another lab would mean losing nearly three years of work.

News stories in the past few weeks show this situation to be all too common. Scholars call this kind of workplace bullying abusive supervision. It’s a phenomenon I’ve studied for more than 12 years.

Studies suggest rates of bullying are higher in academic settings than in other workplaces (L. Keashly and J. H. Neuman Admin. Theory Praxis 32, 48–70; 2010), but I have no evidence that scientists are more likely than the general population to have characteristics of abusers or their targets. I do think that academic science is a breeding ground for toxic dynamics, mainly because lab heads have so much power over their trainees.

Abusive supervision is more than the occasional lapse into insults, snubs or invasions of privacy. Similar to non-physical domestic abuse, it is defined by sustained hostile behaviour, such as ridiculing, threatening, backbiting and blaming. The ‘causes’ fall into three categories: characteristics of the target, the supervisor and the situation.

Abusive supervisors often target specific individuals: some pick on their best workers, but poor performers are especially vulnerable. So are those who are different from their adviser, including in gender, ethnicity and sexual orientation. The strongest predictors involve deeper differences, such as working styles, that promote conflict.

Some individuals are more likely to be abusive. Even well-intentioned people in authority are vulnerable to ‘power poisoning’, which makes them less considerate of others’ needs. People who have trouble managing their emotions are more likely to be seen as abusive by employees. So are those with a history of family abuse, or traits such as Machiavellianism (cheating in pursuit of one’s interests). And someone who experienced bullying as they rose through the system will often go on to bully.

Stress and perceptions of injustice from above or from external power brokers are also factors. In academic science, lab heads are under pressure from their institutions to publish papers and get grants; that pressure is often passed down to lab members as bullying.

Some supervisors get away with abuse for years. The tendency of universities to take a hands-off approach in the name of academic freedom provides few brakes on outrageous behaviours.

In most workplaces, a bullying boss would see high rates of employee turnover. But in many ways, lab members are captive, making them more vulnerable to abuse. PhD students and postdocs depend on supervisors for publications, funds and letters of recommendation. Changing advisers means years of lost work and, often, damage to a trainee’s reputation. The longer a lab member remains, the greater their commitment to finishing their work under that person, despite abuse.

Abusive supervision has consequences. Those who are abused experience psychological distress, dissatisfaction, emotional exhaustion and depression. It triggers counterproductive behaviours, such as retaliation, aggression towards others and aggression towards the organization — although rarely towards the supervisor. People who are targeted tend to minimize interactions with abusers, although this does not alleviate distress. Social-science experiments suggest feelings of social exclusion, anxiety and stress can lead to unethical choices, such as fudging results (M. Kouchaki and S. D. Desai J. Appl. Psychol. 100, 360–375; 2015).

Those experiencing abuse can react in three ways. Most just tough it out, and suffer the psychological consequences. Some change advisers, setting them back in their training but improving their well-being. After talking to me, the young woman decided to gently confront her adviser. She would tell him that she was uncomfortable with his yelling and would prefer that he speak to her calmly, giving her feedback about what she was doing right and wrong. I never found out whether things improved for her.

Research suggests that only a few confront their bullies, either by speaking up about injustices or explicitly stating how they expect to be treated (B. J. Tepper et al. Acad. Manage. J. http://doi.org/cs82; 2007). This can improve well-being, but it is risky. Carefully seeking out emeritus faculty members or graduate advisers can help; they might offer insight or be able to intervene with less risk to themselves than some. And the line between abusive behaviour and tough, objective and constructive feedback is not always clear.

The best move is never to join a bully’s lab. Prospective lab members must ask current ones what it is like to work with the supervisor. Hesitation or responses such as “Being associated with Dr X is an honour, but . . . ” should give them pause. Too many students look to work with a big name who has lots of publications instead of heeding warnings.

Research institutions must do more to watch for and eliminate abuse. Feedback from lab members should be part of supervisors’ appraisals, hiring and promotion. Institutions should conduct exit interviews of lab members, and survey them a few years after leaving. Funders should reward institutions that do this, perhaps with more-favourable indirect costs on grants. In the most egregious cases, institutions should dismiss faculty members or strip abusive supervisors of their right to train PhD students. And the system must create navigable paths for early-career researchers to switch supervisors. When penalties are rare, bad behaviour can thrive. Let’s change that.

Sherry Moss is a professor of organizational studies at Wake Forest University’s School of Business in Winston-Salem, North Carolina, USA.

e-mail: mosss@wfu.edu