STEM Students Are Asking More of the #MeToo Movement

Harassment in the sciences doesn’t only come in the form of neatly packaged Title IX reports of clear sexual abuse.

By Emmalina Glinskis

APRIL 17, 2018
Louisa Kimball, 16, left, and Alice Tibbetts, 15, listen to speeches at the steps of the Mason Library in Great Barrington during the second March for Science on April 14, 2018, in Great Barrington, Massachusetts. (Stephanie Zollshan/The Berkshire Eagle via AP)

In early October, when the #MeToo conversation was just beginning to spark a public conversation about sexual harassment in the workplace, Science Magazine broke the disturbing story of a Boston University investigation into sexual misconduct complaints from former graduate students. After two decades of silence, two women had filed formal accusations against a prominent geologist for physical and verbal abuse at a remote Antarctic field station.

The abuser shouted curses, pelted rocks, and urinated on the women, leading one victim to abandon her career dreams and leave the academic field entirely. Similarly, Sarah Myhre's telling account in Newsweek a few months later detailed months of sexual assault she experienced doing field research in the tropics.

In the sciences, it's a common backdrop for harassment: a remote foreign field, stationed alongside a staff research scientist—a position currently dominated by older men—in a two-person research project. Or the quiet isolation of a laboratory, overseen by a tenured adviser who holds the power to determine the entire course of their graduate student's career. Since these instances were
often kept quiet, little was known about the prevalence of sexual abuse in STEM. But as the #MeToo movement launched, the tides seemed to change.

Last September, in one of the strongest statements it has made on sexual misconduct, the American Geophysical Union (AGU), updated its ethics policy to put harassment “on equal footing with fabrication, falsification and plagiarism in a research environment,” as the group’s president put it in the announcement. The National Science Foundation quickly followed suit, announcing a new set of measures that promised to suspend or eliminate vital grants to researchers if an institution finds evidence of harassment, the equivalence of a death sentence in a scientist’s career. And in February, the bipartisan House Subcommittee on Research and Technology held its first-ever hearing on sexual
harassment and misconduct in science, featuring federal science-agency heads and experts like Kathryn Clancy, PhD, the author of a groundbreaking 2014 study that found 64 percent of scientists who engaged in field work have experienced some form of sexual harassment; 20 percent experienced sexual assault.

But among the applause-provoking comments NSF and AGU representatives made about rooting out inappropriate behavior, Clancy offered a different perspective: Harassment in the sciences, she pointed out, doesn't only come in the form of neatly packaged Title IX reports of clear sexual abuse, but from the more loose and varied kinds of gender harassment that often precede them—“put downs,” as Clancy called them. While shining a spotlight on sexual harassment through strict punishment and consequence is a step in the right direction, “focusing on headline-making cases may avert attention from the underlying issues: institutional tolerance for patterns of behavior, legal or illegal, that create an unwelcoming environment for women and underrepresented minorities,” wrote biologist Katie Burke for American Scientist.

Women make up just 24 percent of the STEM workforce, and although the number of women receiving doctorates has increased over the past 20 years, women remain under-represented in tenured
university faculties. A 2014 report found that more than half the women who enter STEM fields leave them within a decade, close to twice the frequency of their male peers. According to current science graduate students, the “leaky pipeline” of missing female involvement in higher STEM positions is the result of localized gender harassment early in their careers, an aspect they fear is being sidelined by the national-level attention to explicit sexual abuse brought on by #MeToo.

Maryam Majeed and Yaqiong Chen, current PhD students and co-presidents of Columbia University’s Women in Science, a graduate student organization devoted to the advancement of women and underrepresented groups in the sciences, say the movement is not doing enough at the lowest levels to address what they see as a serious lack of institutional support for handling person-to-person power dynamics. Chen herself heard and witnessed acquaintances who decided to drop out of science PhD tracks because of persistent verbalized gender harassment from their advisers, who consistently told them they weren’t smart enough or their work was worthless. “There’s no way to respond to this,” Chen said. “You either just be quiet, shut up, and keep doing your work and suffer for five years with mental damage and hope you can get the degree, or quit. And they all chose to quit.”
In their eyes, national-level action by NSF, AGU and Congress to punish misconduct doesn’t work unless students actually report instances of gender or sexual harassment. And to Majeed, this is “totally impossible.” Chen agreed. “You have to sacrifice everything. You have to be ready to give up on yourself.”

According to a 2016 paper, 38 percent of female graduate students surveyed experienced sexual harassment by a faculty member, and only 6.4 percent reported it. Science students could face insurmountable hurdles if they choose to act against sexual abuse—losing grant funding, having trouble publishing peer-reviewed articles, and stalled tenured positions are all potential consequences. Rukmani Vijayaraghavan, a postdoc in astrophysics at the University of Virginia, says the reason we don’t hear from the women lower in institutional hierarchies is because the price for speaking out is so high. “There’s this fear of retaliation, a fear of the fact that this person has so much more power than you, that universities are very rarely incentivized to do something about it,” she said. “And it’s much easier to ignore the problem than to punish someone who is bringing in millions of dollars of grant money and is incredibly prestigious in the field.”
This intimidation leads to silence, especially when the only solution for relief scales up from a lab encounter straight to the university-level Title IX system, which can seem like an intimidatingly momentous and foreign gesture for an instance so personal. According to the students, there’s no middle ground in retaliation, since the only final choice is to fire the faculty. Majeed doesn’t see this as an effective avenue. “How many faculty members have actually stepped down or been made to step down due to harassment? Very few. You can literally count them,” she said. A study this year of nearly 300 faculty-student harassment cases found only a handful of instances where harassers were found guilty and had their positions terminated.

At the same time, milder options, like paying a fine or requiring educational courses, can only make the issue worse. “You’ll likely face your colleague every day, the very person you reported,” says Chen. “How well is someone supposed to handle that relationship?” says Chen.

It is rare, Chen and Majeed say, to see any preventative action or even conversations on this issue in lab- or department-meetings, which is where women are most likely to face day-to-day put-downs. There may be a strong institutional stance on harassment—there can be hearings and updates
to the ethics policy—but advisers and staff scientists who determine their careers aren't necessarily being made to follow it.

Majeed said she could recall only one professor in her career sitting down with her to discuss guidelines for potential instances of harassment before starting a lab job. “That is literally a needle in the haystack—no PI has ever done that,” she said, referring to principal investigators, the lead researchers in grant-funded projects that manage everything from finances to the project’s execution. One student mentioned that an older female staff scientist once spoke about a time when she, as a graduate student, tried to report an incident of assault by a colleague to her adviser and was simply told to deal with the issue herself.

“What bothers me the most about how this usually looks in science is that we wrap sexual harassment up in this package that we claim is intellectual rigor and meritocracy,” said Clancy, author of the study on sexual harassment in the sciences, to a room full of Congress members in February. “It's like we think that rudeness and cruelty are the same thing as being smart, without noticing that we direct these cruelties more at women than men, more at women of color than white women, more at sexual minorities than straight folk.”
Priya Moni, a PhD student at MIT, also commented on the common questioning of intelligence and worth that women in the sciences experience at a National Academy of Sciences Committee meeting last October, pointing out that one in five women have heard someone say she got into MIT because she’s a woman. What can hurt the most, she said, were microaggressions—sexist jokes, body-image insults, light jabs with ugly undertones. “After the first few times it happens, you think that it’s you,” Vijayaraghavan said, agreeing. “You feel like you just don’t belong, and that adds up over time.”

But Vijayaraghavan remains hopeful, pointing to the growing membership in her trailblazing organization, 500 Women Scientists, a group that began in reaction to Trump’s election with a mission to make science “open, accessible, and inclusive to all.” When the group’s original goal of 500 supporters quickly surged to over 20,000, their mission took on dual purposes: “We realized that there is this anti-science streak in the country, and we wanted to try and do something about it,” she said. “But at the same time, science itself has its own issues with equality and representation and the way women are treated. Now, the organization writes op-eds in major outlets, hosts a database of women scientists for media outlets seeking comments, and organizes local chapters or “pods” in over 100 countries to discuss grassroots solutions for
inclusivity in the scientific community. They have also discussed possibly launching a “Good Actors/Bad Actors” list, which would publicly display, and therefore hold accountable, the best and worst institutional efforts by universities to address harassment and gender imbalance.

With such varied stances on sexual and gender harassment in universities across the country, getting through to each lab, each department, and each institution creates islands of different climates on the issue. The extra hurdle of fading institutional memory encourages inaction further—since most graduate students stay at a university for only four to six years, issues can get swept under the rug until an exit, and levels of enthusiasm and involvement wax and wane. In seeking help, Chen says a commonly heard piece of advice is to “just stay quiet, graduate from school, and then move on with life.”

Right now, PhD programs don’t have a “glass-door” workplace rating-system equivalent. Most warnings about potential harassment still come from word of mouth, and they often arrive only after a PhD student has accepted the lab’s offer. “There’s no history that is being tracked, so that’s one way where PIs get away with these cases,” Majeed added. “And these things are very measurable.” Currently, Columbia University only publishes yearly counts of
gender-based misconduct complaints of anonymous and university-wide student-to-student instances. Majeed proposed a transparent and widely accessible reporting system, almost identical to something that already exists in all university labs to comply with Environmental Health and Safety guidelines, which requires each lab to file and track instances of general safety violations and impose fines regardless of how well-established that lab is. In much the same way, anonymous, local-level harassment complaints on a per-lab basis could be tracked and collected for each PI—what would be a less intimidating intermediate step before engaging with the Title IX system.

For science students, solutions need to come from the bottom up to instigate the culture change the field requires. And that begins with supporting students—to report in numbers, to call out bias and educate their elders without fear, to actively look for help even in vulnerable situations. But it also means starting these efforts earlier, beginning in K-12 education, to encourage women to study STEM with confidence alongside a host of female role models going forward. Because “put downs” exist at every level—Vijayaraghavan recalls a high-school robotics camp in Charlottesville, where the already-few girls left because of bullying, or her own exclusion from physics study groups in her male-dominated undergrad seminar.
While directives dispelling gender harassment from the sciences are increasingly making their way across national scientific organizations and agencies, voices on the ground are only just beginning to speak up. “Collectively, I think students have a lot of power,” Vijayaraghavan said. It’s time we finally listen to them.

**Emmalina Glinskis** Emmalina Glinskis is an environmental researcher, freelance journalist, and recent Fulbright scholar. She was formerly an editorial intern at The Nation and has previously written for VICE News Tonight’s Climate Desk. Follow her on Twitter: [@emmalinag](https://twitter.com/emmalinag).

To submit a correction for our consideration, click [here](https://www.example.com/correction). For Reprints and Permissions, click [here](https://www.example.com/reprints).

---

**COMMENT (1)**

---

**TRENDING TODAY**

1. Vegetable That Destroys You from the Inside
2. 22 Daring Women That Will Inspire Your Standards Of Beauty
4. Pierce Brosnan’s Final Net Worth Amazed Us All

Ads by Revcontent
After Losing 250lbs Pierce Brosnan’s Wife is Unbelievably Gorgeous
Reportly

27 Hilarious Movie Mistakes You Totally Missed
Routinejournal

Game Of Thrones Incredible Moments
Drizoo

Simple Way To Lose Weight Fast!
diet.fitlivingmag.com