

Stress in the classroom can be as contagious as the flu

[Adrienne Matei](#)

CLASSROOM CONTAGION



Classroom contagion is a real thing. (AP Photo/Malaysia)

Classrooms are known to double as petri dishes. But a [new study from the University of British Columbia](#) suggests elementary schools spread more than chicken pox and common colds. Stress, it seems, is contagious in the classroom—and it's particularly virulent when transferred between teachers and students.

The study was conducted to examine what professor and psychologist Dr. Kimberly Schonert-Reichl calls “stress contagion” theory. Co-authored with Dr. Eva Oberle, an assistant professor at UBC’s School of Population and Public Health, [it was published in the *Journal of Social Science and Medicine* in June.](#)

Stress contagion theory posits that while human emotions may seem

personal and internally generated, we are in fact biologically sensitive to the emotional tenor of those around us. When the prevailing mood of our company is negative, our bodies have the tendency to respond by releasing hormones that make us feel negative too. The phenomenon has been observed occurring [between mothers and their infants](#) and between romantic partners, but Oberle and Schonert-Reichl are the first to explore the physiological symptoms students may suffer when their teachers are stressed.

Oberle measured the levels of the cortisol—a hormone indicative of stress—in 400 saliva samples collected from 77 public elementary school students between grades four and seven. She also had the students' 17 teachers respond to a survey on their workplace satisfaction, determining their levels of depersonalization and emotional exhaustion—how “burnt out” they were. She discovered elevated levels of cortisol in the students of teachers who felt burnt out, stressed, and unsupported.

In humans, biological stress is managed by the HPA-axis, which is a set of [endocrine glands \(the hypothalamus, the pituitary, and the adrenals\)](#) that regulate cortisol production in our daily circadian rhythms. Healthy subjects' levels increase in the morning before steadily declining throughout the day. If cortisol does not decline and instead remains elevated (or drops too low), the pattern deregulates, and the metabolic, nervous, and immune systems all get thrown off kilter as a result. Oberle notes that students with higher levels of cortisol suffer from more mental health and behavioral problems in school, and also struggle academically.

Middle school, as many can attest, is a particularly trying time. Bullies

and crushes aside, [biological and cognitive changes](#) begin their tedious and unnerving transformation of our bodies and minds, and we start to establish the sense of identity we'll carry into our teens. Middle childhood is therefore an especially vulnerable period, when extra stress can compound the baseline torment of normal pubescence.

"Because this is a time during which children shift their focus away from their family environment and toward their peers and adults in their larger community—like teachers—a positive school environment with supportive teachers can be a key asset that promotes resilience and positive development in young people," Oberle explains.

Consistently negative interactions with teachers during middle childhood can result in emotional, mental, and academic difficulties that may linger for years. "Children spend most of their day with the classroom teachers," Oberle says. "Teachers are among the most important adults in a child's life ... Teachers who experience burnout may have difficulty to managing their classrooms effectively and creating positive learning environments, contributing to students' stressful experiences."

Oberle notes that there are occupational stressors that lead teachers to stress out, and thus stress out the kids they teach. Some of these include scarce educational resources, increased time pressures, and lack of support in dealing with challenging members of the class. As a result, the study concluded that burnout is [presumed to be highest in teachers](#) compared to any other profession. Up to 50% of new American teachers leave their jobs within the first three years, with burnout being a leading factor behind the decision to quit.

This teacher dropout rate isn't limited to North America. Europe, China, and Australia [all see similar numbers](#). Things that help teachers cope with burnout, such as chances to foster supportive relationships with colleagues and access to professional development opportunities, are not often institutional priorities.

"It is important not to blame teachers," Oberle says. "Often, professional development that helps teachers cultivate the skills to address social and emotional issues in the classroom is sparse." In order to achieve these goals, she argues, institutional change is needed: "The system needs to prioritize teachers' 'self-care' and support teachers' mental health."

While most research surrounding student-teacher relationships views troublesome student behavior as a cause of teacher burnout, Oberle sees a reverse relationship, with stressed teachers propagating at-risk students by "infecting" them with elevated cortisol. To stem the viral spread of stress, the study concludes, teachers need to build immunity—and have help in doing so. Without it, elevated student cortisol may become an epidemic, spawning symptoms far harder to beat than a case of the sniffles.

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