

## Stress contagion possible amongst students and teachers: UBC study

Media Release | June 27, 2016



(<http://news.ubc.ca/wp-content/uploads/2016/06/teacherstressed770.jpg>)  
UBC researchers have found a potential link between student stress and teacher burnout. Photo: iStock

Teacher burnout and student stress may be linked, according to a University of British Columbia study.

The study is the first of its kind to examine the connection between teacher burnout and students' cortisol levels, which are a biological indicator of stress.

Researchers collected saliva samples from over 400 elementary school children and tested their cortisol levels. They found that in classrooms in which teachers experienced more burnout, or feelings of emotional exhaustion, students' cortisol levels were elevated. Higher cortisol levels in elementary school children have been linked to learning difficulties as well as mental health problems.



"This suggests that stress contagion might be taking place in the classroom among students and their teachers," said Eva Oberle, the study's lead author and newly appointed assistant professor with the Human Early Learning Partnership (HELP) at UBC's school of population and public health. "It is unknown what came first – elevated cortisol or teacher burnout. We consider the connection between student and teacher stress a cyclical problem in the classroom."

Oberle said a stressful classroom climate could be a result of inadequate support for teachers, which may impact teachers' ability to effectively manage their students. A poorly managed classroom can contribute to students' needs not being met and increasing stress. This could be reflected in elevated cortisol levels in students.

Alternatively, stress could originate from students, who may be more challenging to teach because of increases in anxiety, behavioural problems, or special needs. In this scenario, teachers could feel overwhelmed and report higher levels of burnout.

"Our study is a reminder of the systemic issues facing teachers and educators as classroom sizes



### Contact

#### Corey Allen

UBC Public Affairs

Cell: 604.209.3048

Email: [corey.allen@ubc.ca](mailto:corey.allen@ubc.ca)

(<mailto:corey.allen@ubc.ca>)

[@coreyallenubc](http://www.twitter.com/coreyallenubc)

([http://www.twitter.com](http://www.twitter.com/coreyallenubc)

[/coreyallenubc](http://www.twitter.com/coreyallenubc))

### Media Resources

- [Media Contacts](#)  
(<http://news.ubc.ca/media-contacts/>)
- [Experts Directory](#)  
(<http://news.ubc.ca/ubc-experts/>)
- [Digital Subscriptions](#)  
(<http://news.ubc.ca/media-resources/e-services/>)
- [UBC Map](#) (<http://maps.ubc.ca>)
- [UBC Photos](#)  
(<http://news.ubc.ca/media-resources/ubc-photos/>)
- [UBC Facts and Figures](#)  
(<http://news.ubc.ca/media-resources/ubc-facts-and-figures/>)
- [TV and Radio Studios](#)  
(<http://news.ubc.ca/media-resources/tv-and-radio-studios/>)
- [UBC's Okanagan Campus Newsroom](#) (<http://news.ubc.ca/ubc-okanagan-news-room/>)

Tweets by [@ubcnews](#)

UBC Public Affairs Retweeted

**UBC** [Liu Institute at UBC](#) @LiuInst...

Our statement of solidarity with those impacted by the U.S. travel ban & with the Muslim community @UBC & beyond [liu.arts.ubc.ca/news-and-view/](http://liu.arts.ubc.ca/news-and-view/) ...



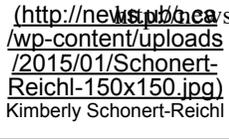
**In Solidarity – ...**  
The Liu Institute...  
[liu.arts.ubc.ca](http://liu.arts.ubc.ca)

[Embed](#)

[View on Twitter](#)

increase and support for teachers are cut, said

Oberle. "It is clear from a number of recent research studies that teaching is one of the most stressful professions, and that teachers need adequate resources and support in their jobs in order to battle burnout and alleviate stress in the classroom," said UBC education professor Kimberly Schonert-Reichl, the study's co-author and director of HELP. "If we do not support teachers, we risk the collateral damage of students."



**Background**

The study, published in Social Science & Medicine (<http://www.sciencedirect.com/science/article/pii/S0277953616302052>), was carried out in Grade 4 to 7 classrooms at 17 public schools in B.C.'s Lower Mainland.

Teacher burnout was determined through survey results.

**Study**



**Stress contagion in the classroom? The link between classroom teacher burnout and morning cortisol in elementary school stu**

Eva Oberle <sup>a,\*</sup>, Kimberly A. Schonert-Reichl <sup>b</sup>

<sup>a</sup> The University of British Columbia (UBC), School of Population and Public Health (SPPH), Human Early Learning Partnership (HELP), Canada  
<sup>b</sup> The University of British Columbia (UBC), Department of Educational and Counselling Psychology, and Special Education; School of Population Health (SPPH), Human Early Learning Partnership (HELP), Canada

**ARTICLE INFO**

*Article history:*  
Received 17 August 2015  
Received in revised form 6 April 2016  
Accepted 23 April 2016  
Available online 24 April 2016

*Keywords:*  
Middle childhood  
Stress  
Well-being  
Teacher–student relationships

**ABSTRACT**

*Objective:* The purpose of this study was to explore the link between cla and students' physiological stress response. Drawing from a stress-con higher levels of teacher burnout to be related to elevated cortisol levels ( $N = 406$ , 50% female, *Mean* age = 11.26, *SD* = .89).  
*Method:* Classroom teacher burnout was assessed with the Maslach I teachers. Salivary cortisol was collected as an indicator of students' h<sub>1</sub> (HPA) functioning. We collected salivary cortisol in children at 9 a.m classroom setting.  
*Results:* Using Multilevel Modeling, we found that children's morning co between classrooms (10% variability). Higher levels of classroom teacher the variability in morning cortisol. Teacher burnout reduced the unexpla

[View this document on Scribd](http://www.scribd.com/doc/316571791) (<http://www.scribd.com/doc/316571791>)

Find other stories about: [Eva Oberle](http://news.ubc.ca/tag/eva-oberle/), [Faculty of Education](http://news.ubc.ca/tag/faculty-of-education/), [Faculty of Medicine](http://news.ubc.ca/tag/faculty-of-medicine/), [Human Early Learning Partnership \(HELP\)](http://news.ubc.ca/tag/human-early-learning-partnership-help/), [Kimberly Schonert-Reichl](http://news.ubc.ca/tag/kimberly-schonert-reichl/), [School of Population and Public Health](http://news.ubc.ca/tag/school-of-population-and-public-health/)

**Public Affairs**

310 - 6251 Cecil Green Park Road  
Vancouver, BC Canada V6T 1Z1  
Tel 604 822 6397  
Fax 604 822 2684  
Website <http://news.ubc.ca>  
(<http://news.ubc.ca>)  
Email [public.affairs@ubc.ca](mailto:public.affairs@ubc.ca)

**Find us on**

 ([http://twitter.com](http://twitter.com/ubcnews))  
 ([https://www.youtube.com](https://www.youtube.com/user/ubcpublicaffairs/))