

Science

As part of this project, NIEER is collecting saliva from children and teachers using a cotton swab. The samples will be analyzed for a stress hormone called Cortisol. Samples are identified using a unique number--not names; and samples will only be tested for the specified hormone, then destroyed. Here, Dr. Friedman-Krauss answers questions about this aspect of our research.

Q. Why are you collecting saliva from children and teachers?

There is an abundance of information in saliva (who knew!). We are interested in one hormone called Cortisol that can be easily measured through spit.

Q. What is cortisol?

Cortisol is a steroid hormone that is produced by the adrenal gland and released in response to stress.

Q. What will the measure tell you?

We are measuring Cortisol responses for both children and teachers to gauge their levels of stress by measuring if levels drop during the day or remain high. Usually, Cortisol levels decrease throughout the day. If individuals are very stressed, however, Cortisol levels will remain high.

Q. Why do you want to know about stress levels?

We hope to use test results to identify which pre-K program characteristics are least stressful for children and teachers.

We recognize that teaching preschool is a demanding role—but there has been little research on preschool teacher stress as measured by Cortisol. We want to explore whether teacher stress is related to characteristics of the preschool program or their classroom. For example, are teachers more stressed when children in their classrooms demonstrate challenging behaviors?

Research has found that, generally, children who attend child care have elevated Cortisol levels, compared to children cared for at home—but children who attend high-quality ECE programs tend not to show elevated Cortisol levels.