

Program: How Our Brains Learn, Develop, and Respond to Adversity

Speaker: Lori Desautels, PhD, Asst. Professor, School of Education, Butler University **Introduced**

by: Alan Schmidt, Sciencetech Member

Attendance: 119

Guests: Richard Albright, David Bonner

Scribe: Dick Garrett

Editor: Jim Willson

Dr. Desautels is an Assistant Professor at Butler University. She works with schools to help educators understand brain development and the response to stress. "She is the author of two books: "How May I Serve You" and "Unwritten the Story of a Living System".

Overview – each month there is growing knowledge about the relationship between our environment and our brains. This is particularly true of children who grow up in difficult home situations. The research of this kind of negative experiences began with *The Adverse Childhood Experiences Study (ACE Study)*, a study conducted by the American health maintenance organization Kaiser Permanente and the Centers for Disease Control and Prevention. Participants were recruited to the study between 1995 and 1997 and continue to be in long-term follow up for health outcomes. The validity of this study and many other similar works is now well established, and the school systems are beginning to make changes in the way they manage children. Many of these schools refer to themselves as Trauma Sensitive schools.

Professor Desautels points out that there are many children in the US living in poverty and that these children often face difficult home situations. These bad experiences are called Adverse Childhood Experiences or ACE for short. A copy of the score sheet used to determine the level of a person's adverse experiences is found at the end of this write-up.

At least 38% of the children in most states have one or more ACE points. Many children have ACE scores greater than 4. Having an ACE score of 4 or more increases the risk of emphysema or chronic bronchitis by nearly 400 percent, and attempted suicide by 1200 percent. People with high ACE scores are more likely to be violent, to have more marriages, more broken bones, more drug prescriptions, more depression, more autoimmune diseases, and academic issues in school. In addition, these individuals, as children, can be difficult to manage in the classroom. Dr. Desautels is working in twelve Indianapolis schools in order to create techniques that will allow the teachers to more effectively manage these children.

One of the key things to know about ACE laden children is that their cognitive processes are in the lower portions of their brains and it is difficult for them to use the more important upper portions of their grey cells; the area where memory and learning take place.

Here is the antidote to reverse some of the issues faced by these children – relationships. There is no substitute for caring adults.

Adverse Childhood Experience (ACE) Questionnaire Finding your ACE Score

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** ... Swear at you, insult you, put you down, or humiliate you?

OR Act in a way that made you afraid that you might be physically hurt?

Yes No If yes, enter 1 _____

2. Did a parent or other adult in the household **often** ... Push, grab, slap, or throw something at you? OR Ever hit you so hard that you had marks or were injured?

Yes No If yes enter 1 _____

3. Did an adult or person at least 5 years older than you **ever**... Touch or fondle you or have you touch their body in a sexual way?

OR Try to or actually have oral, anal, or vaginal sex with you?

Yes No If yes enter 1 _____

4. Did you **often** feel that ... No one in your family loved you or thought you were important or special?

OR Your family didn't look out for each other, feel close to each other, or support each other?

Yes No If yes enter 1 _____

5. Did you **often** feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?

OR Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

Yes No If yes enter 1 _____

6. Were your parents **ever** separated or divorced?

Yes No If yes enter 1 _____

7. Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her?

OR Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?

OR Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes No If yes enter 1 _____

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

Yes No

If yes enter 1 _____

9. Was a household member depressed or mentally ill or did a household member attempt suicide?

Yes No

If yes enter 1 _____

10. Did a household member go to prison?

Yes No

If yes enter 1 _____

Now add up your “Yes” answers: _____ This is your ACE Score

FOR FURTHER INFORMATION:

1. A complete copy of Dr. Desautels’ slides from today’s talk are available at the Sciencetech website through the following link:
www.Sciencetechclub.org/presentationSlides/AdversityAndBrain.pdf
2. Dr. Desautels’ email address is: : ldesaute@butler.edu
3. Dr. Desautels’ web site is <http://revelationineducation.com>



Dr. Lori Desautels