Trouble Letting Go: Addiction and the Brain

PARTICIPANT WORKBOOK

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Frank Kros, MSW, JD
Transformation Education Institute
6802 McLean Boulevard, Baltimore, MD 21234
410-444-5415 | www.upsidedownorganization.org
About Your Presenter

Frank is a career child advocate, who has served as a childcare worker, child abuse investigator, children’s home administrator, consultant, college professor, attorney, writer and speaker. Frank most recently served as president of the Transformation Education Institute (formerly The Upside Down Organization), Director of the National At-Risk Education Network (NAREN) and Executive Vice President of the TranZed Alliance, a multi-service children’s organization headquartered in Maryland.

Frank is a worldwide speaker. His engaging presentations focus on “Helping Adults Help Kids” through an understanding of neuroscience and its practical application to everyday practices with children and youth. Frank’s brain-inspired workshops include topics such as trauma responsiveness, poverty and learning, mental health and resiliency, well-being and the developing brain, and extraordinary emotional health for adults serving children and youth. He has presented his workshops at national education, social work and human services conferences, and Frank was awarded a Maryland Governor’s Citation for his presentations on suicide and the adolescent brain.

He was the recipient of the 2018 Advocate of the Year Award from the Maryland State Council on Child Abuse and Neglect and Maryland Essentials for Childhood. Frank is a member of an elite group trained on the Adverse Childhood Experiences Study, or ACEs and added the title of “Master ACEs Trainer” to his bio in 2018.
1. Brain 101: An Introduction to Brain Anatomy and Chemistry

**Basic Brain Anatomy**

- **FRONTAL LOBES**
- **HYPOTHALAMUS**
- **AMYGDALA**
- **HIPPOCAMPUS**
- **CORPUS CALLOSUM**
- **CEREBELLUM**

**The Brain Made Ridiculously Simple!**

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<td>The Mail Carrier</td>
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2. Cortisol: The Mysterious Motivator
Know as “Stress”

WHAT IS STRESS?
Stress is a physiological response to a perception of a lack of control over an aversive situation, person or event.

3 Stages of the Stress Response

Neurogenesis
Birth of New Brain Cells

Neurogenesis is known to positively regulate our learning, mood, memory and overall health.

INCREASED BY: Exercise, Complex Environments, New Learning, Nutrition, Low Stress

REduced BY: Distress, Inactivity, Boredom, Depression, Poor Nutrition
3. Addiction in the Brain: The 4 “Whats”

The 4 “Whats” of Addiction
1. What’s the Brain Got To Do With It?
2. What Happens in the Brain When Someone is Getting High?
3. What is Addiction in the Brain?
4. So What?

1. What’s the Brain Got To Do With It?

Why the Brain: Reason #1
Because the brain is involved in EVERYTHING humans do.

Why the Brain: Reason #2
Because knowledge about the brain is EVERYWHERE these days.

Why the Brain: Reason #3
Because the brain is where addiction does its insidious work.

Both the “High” and the “Addiction Response” Happen Here!
Voluntary behavior in animals (including humans) is motivated by the avoidance of pain and the pursuit of pleasure.


The motivation to pursue a beneficial act to enhance survival is driven in part by the brain giving a brief squirt of *euphoria* — the reward system.

This euphoric feeling is caused by the secretion of endorphins in the brain. The most important of which is the neurotransmitter *dopamine.*
Addictions CHANGE the Brain.

For much of human history, most of the pleasurable activities that we are wired to pursue occur in nature in limited supply, making it hard to overindulge.
4. So What?

ADDICTION TREATMENT IMPLICATIONS

1. Delayed Experimentation (Montana Meth Project).
2. Early Intervention. Damage happens faster in younger brains.
3. Abstinence (w/motivation) will heal many brains.
4. Medications are the future. (Ironic, isn’t it?)
5. Identify and reinforce healthy activities that stimulate the reward system.

TAKE HOME MESSAGE

Help everyone you know find healthy ways to produce dopamine!

Healthy Dopamine SQUIRTS!
Positive Relationships | Vigorous Physical Play | Goal Achievement | The Arts | Helping Others

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If you benefited from today’s workshop, Please Tell Someone!

TRANSFORMATION EDUCATION INSTITUTE

6802 McClean Boulevard
Baltimore, MD 21234
410-444-5415
paul@upsidedownorganization.org

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