Neuroscience-based Trauma Treatment

How to Maximize Your Efficacy

JENNIFER SWEETON

Despite your best efforts, evidence-based trauma therapies can fail, leaving you feeling frustrated and helpless. Fortunately, neuroscience research provides insights into why this often occurs, and what steps therapists can take to maximize treatment efficacy. This workshop offers simple, neuroscience-based skill sets you can help clients build before initiating evidence-based trauma therapies, as well as straightforward, easy-to-implement techniques that can prepare clients' brains for trauma-focused treatment. Specifically, you'll discover:

- The five areas of the brain impacted by trauma, and how each contributes to posttrauma symptoms
- What neuroscience tells us about the recommended "order of operations" of trauma treatment, and why evidence-based therapies are often initiated at the wrong time
- The difference between bottom-up and top-down approaches to therapy, and when to use each during treatment
- Four techniques that can help prepare clients' brains for the often intense, cognitive-heavy trauma therapies

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Learning Objectives:

1. Assess the five areas of the brain impacted by trauma, and how each contributes to post-trauma symptoms.
2. Evaluate what neuroscience tells us about the recommended "order of operations" of trauma treatment, and why evidence-based therapies are often initiated at the wrong time.
3. Determine the difference between "bottom-up" and "top-down" approaches to therapy, and when to use each during treatment.
4. Use four techniques that can help prepare clients' brains for the often intense, cognitive-heavy trauma therapies.

Outline:

1. List five areas of the brain impacted by trauma, and how each contributes to post-trauma symptoms.
    a. Amygdala – smoke alarm
    b. Hippocampus – timekeeper
    c. Insula – interoception center
    d. Cingulate – self-regulation center
    e. Prefrontal cortex – executive functioning center
2. Explain what neuroscience tells us about the recommended "order of operations" of trauma treatment, and why evidence-based therapies are often initiated at the wrong time.
    a. 1. Build alliance first
    b. 2. Help clients develop felt sense in a safe manner
    c. 3. Utilize bottom up techniques
    d. 4. Utilize top down techniques
    e. 5. Incorporate behavioral techniques
    f. Most evidence-based therapies start with #4 or emphasize #4 instead of emphasizing bottom-up, somatic, stabilizing approaches.
3. Describe the difference between "bottom-up" and "top-down" approaches to therapy, and when to use each during treatment.
    a. Bottom-up: Working with the body to change the brain, especially lower areas of the brain such as the amygdala and insula.

    b. Top-down: Working with the mind to change the brain, especially upper areas of the brain such as the cingulate and prefrontal cortex.
    c. Start bottom-up when treating trauma, before integrating top-down techniques.
4. Use four techniques that can help prepare clients' brains for the often intense, cognitive-heavy trauma therapies.
    a. Mirror neuron activation in emotional centers to build therapeutic alliance
    b. Sensory awareness techniques, including grounding techniques, to increase felt sense and enter the body safely
    c. Vagus nerve activation through breathing-based techniques such as the 5-5-8-2 breath
    d. Body-based techniques such as autogenic training to increase heart rate variability, decrease amygdala activation, increase insula activation
    e. Lifestyle habits, and behaviors outside of session that can build brain-derived neurotrophic factor for hippocampal regeneration

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