



Legal Assistance for Crime Victims

An OVC Capacity Building Initiative

The Neurobiology of Trauma for Beginners: what every practitioner needs to know

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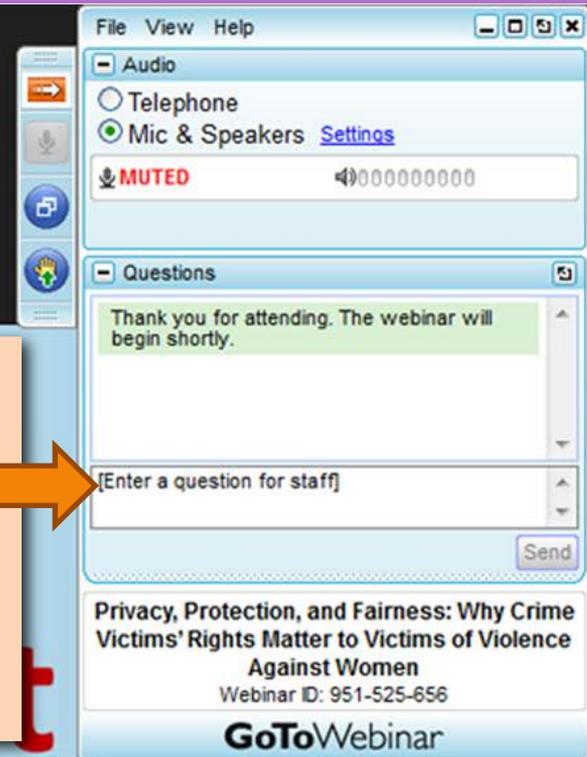


Flow of the Webinar

- You are muted but you can ask questions & participate – and we hope that you do!
- You will receive an email with the powerpoint slides and the recording of the Webinar will be available online.
- Please provide feedback!

How to Ask Questions During the Webinar

When you wish to ask a question, just write your question in the bottom box within your webinar interface. Your question, along with any other questions that have been asked by participants, will appear in the Question and Answer box above.



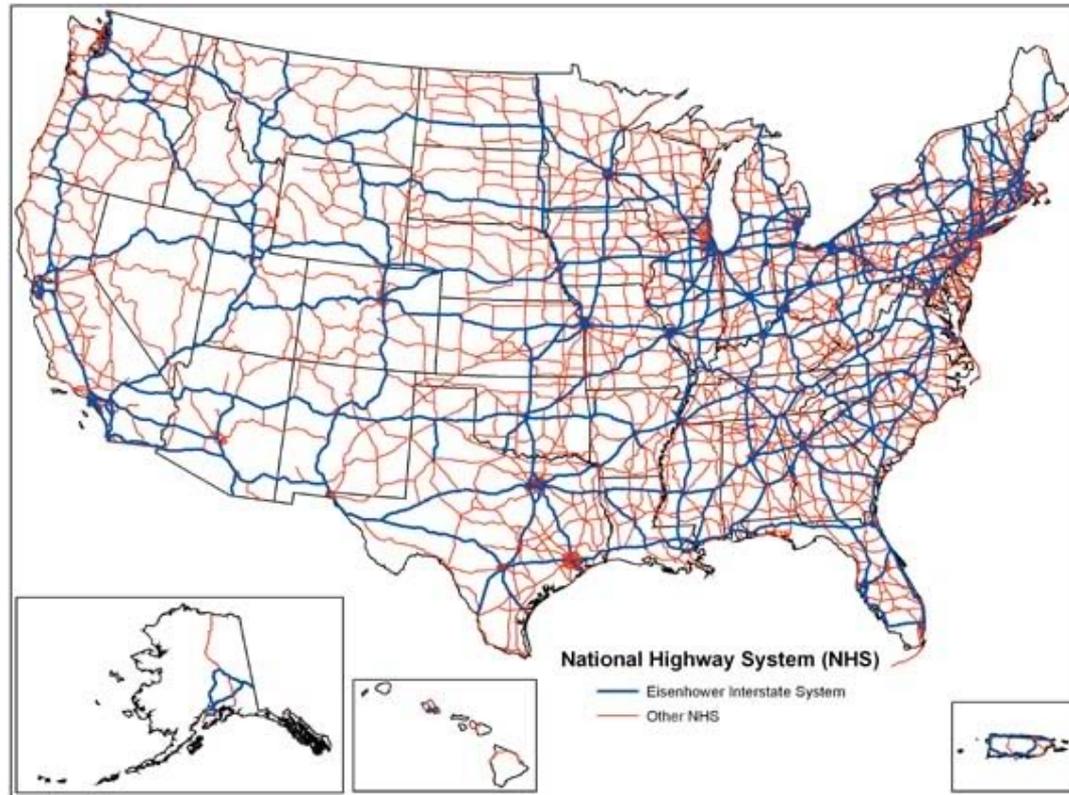
The screenshot shows a GoToWebinar interface. At the top, there is a menu with 'File', 'View', and 'Help'. Below the menu are two main sections: 'Audio' and 'Questions'. The 'Audio' section has radio buttons for 'Telephone' and 'Mic & Speakers', with 'Mic & Speakers' selected. Below this is a volume control bar showing 'MUTED' and a speaker icon with a volume level of '000000000'. The 'Questions' section contains a text area with the message 'Thank you for attending. The webinar will begin shortly.' Below the text area is a text input field with the placeholder text '[Enter a question for staff]' and a 'Send' button. At the bottom of the interface, there is a footer with the text 'Privacy, Protection, and Fairness: Why Crime Victims' Rights Matter to Victims of Violence Against Women' and 'Webinar ID: 951-525-656', followed by the 'GoToWebinar' logo.

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A Few Thoughts Before We Begin



Goals for the Session

Provide understanding of the impact of trauma on the brain in order to:

- Help practitioners feel comfortable talking about the brain & normalizing their clients' experience.
- Further justify the importance of giving victims a voice throughout the process of healing.
- Help clinicians understand the role that awareness of neurobiology can play in helping clients heal.

Additional Benefits of Session

Overcoming internalized or less subtle tendencies to:

- Question a victim's story
- Blame victims for not participating in legal process
- Subtly support the culture of silence

Defining Trauma

What's your definition?

“Trauma is not a disorder but a reaction to a kind of wound. It is a reaction to profoundly injurious events and situations in the real world and, indeed, to a world in which people are routinely wounded.”

~Bonnie Burstow



Defining Trauma

- **Trauma:**
 - physical, cognitive, and emotional response
 - to events and situations that are distressing and
 - overwhelm a person's existing or previous coping mechanisms.
- Your subjective experience (not the facts/event) determine whether an event is traumatic.

Important Information About Trauma Survivors

- Traumatic events happen to competent, healthy, strong, good people. No one can completely protect themselves from traumatic experiences.
- Having symptoms after a traumatic event is not a sign of personal weakness.
- By understanding trauma symptoms better, a person can become less fearful of them and better able to manage them.

(Adapted from a National Center for PTSD fact sheet)

Understanding the Brain

Simplifying the brain - it's easier to understand than you may have been led to believe...

- The brain in your fist:
a 3D map in your hand



Understanding the Brain

- Cortical (thinking/awareness) = fingers
- Subcortical (beyond awareness = below fingers
- Limbic system = thumb
- Pre-frontal cortex = nails



The Brain's Response to Threat

- The brain's response to threat involves several structures including:

In your thumb:

- The amygdala - the early warning system
- The hippocampus - adds immediate context

In your nails:

- The left pre-frontal cortex (LPFC) - adds life context

Imagine for a moment...



The Brain's Response to Threat

ALSO:

- The hippocampus and the LPFC are involved in memory and memory consolidation...



The Impact of Trauma

Exposure to trauma results in

- A more sensitive amygdala
 - Hyper-sensitivity to seemingly innocuous stimulus

Or

- You're startled easily



The Impact of Trauma

Exposure to trauma results in

- High level activation interferes with hippocampus - some think the hippocampus gets bypassed



When is a bang more
than just a loud noise?

The Impact of Trauma

Poll Question #1

The Impact of Trauma

Exposure to trauma results in

- High level activation interferes with hippocampus - some think the hippocampus gets bypassed



When is a bang more than just a loud noise?

When you can't put it in context!

The Impact of Trauma

Exposure to trauma results in

- Reduced volume of hippocampus
 - Inability to categorize experience – Impact is on memory and ability to recall



The Impact of Trauma

Poll Question #2

The Impact of Trauma

Exposure to trauma results in

- Decreased activity in Broca's area
 - Broca's area is related to speech
 - This may explain the difficulty victims have in talking about trauma

The Impact of Trauma

Imagine what it would be like if your memory of breakfast was only this:



And you couldn't even find the words to describe it...

The Neurobiology of Trauma

Exposure to trauma results in

- a neural network that leads to an automatic response to any perceived threat.
- This response may make one feel like s/he's "going crazy," when it's just the reality of the impact of trauma on the brain.
- It can also result in a neural network that defends against any vulnerable emotions by either shutting down or dissociating.

The Left-Prefrontal Cortex

- The LPFC is the nail on your middle finger (if your right hand is your brain)

- The main functions of the LPFC are integrative:
 - Use of language
 - Use of logic
 - Tells the story of your life (lying!)

Healing From Trauma

- The importance of the LPFC in healing:
 - Putting the story in context
 - Moving memory from sub-cortical to cortical
 - Learning to notice the breath

- The hippocampus and amygdala appear to be able to “heal” over time – neuroplasticity is cool!

- Healing requires support!

Implications for Potential Participation in Legal System

Due to the impact of exposure to threatening stimulus (e.g. facing the attacker in court):

- Victims may be further traumatized by participating in prosecution
- Victims may find healing by participating in prosecution

Implications for Potential Participation in Legal System

- A sense of control over the choice whether to participate is crucial.
- Participation can mean many things!

The Neurobiology of Trauma

Poll Question #3

Implications for Legal System

The reality of changing stories

- Due to the way the brain stores emotionally charged memories, as well as the impact of trauma on Broca's area, stories will change over time.
- A victim who has her/his own attorney will have a safe place to consistently express their story without ramification.

Implications for Legal System

The culture of silence versus the importance of integrating the story of trauma.

- Healing trauma comes not just from having a voice but from integrating the story.
- Victims' rights, including the right to be present and the right to be heard, are crucial in helping victims integrate the story of the trauma, and thus heal.

One last thought...

“As part of its legacy, trauma leaves its victims with fear networks etched into the amygdala, networks that can be triggered by a multitude of cues that would ordinarily not evoke fear. Trauma also leaves its victims with fragmented and discontinuous memories of what happened to them. As a consequence of these legacies, the...victim faces enormous challenges in the judicial process. To participate in that process - to endlessly recount their trauma, to appear in the court room where the [perpetrator] sits - is equivalent to the zebra consciously choosing to return to the water hole where the lion attacked.”

Lisak, 2002

Bibliography

“The Body Keeps Score: Approaches to the Psychobiology of Post-Traumatic Stress Disorder.” Bessel Van der Kolk, *Harvard Review of Psychiatry*, 1994, 1(5), 253-265.

Trauma and Recovery. Judith Herman, M.D., Basic Books (1997).

“Neuroimaging Findings in Post-Traumatic Stress Disorder.” Alastair M. Hull, *The British Journal of Psychiatry* (2002) 181, 102-110.

The Emotional Brain: The Mysterious Underpinnings of Emotional Life. Joseph LeDoux, Touchstone (1996).

“The Neurobiology of Trauma.” David Lisak, Ph.D., University of Massachusetts Boston (unpublished article, 2002).

The Mindful Brain: Reflection and Attunement in the Cultivation of Well-Being. Dan Siegel, M.D., Norton W.W. & Co (2007).

Memory and Abuse: Remembering and Healing the Effects of Trauma. Charles Whitfield, M.D., Health Communications Inc. (1995).

Questions?

Completion Code

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PP72413

As part of the *Legal Assistance for Crime Victims: An OVC Capacity Building Initiative*, OVC TTAC and the National Crime Victim Law Institute (NCVLI) are working collaboratively to expand the availability of pro bono and no-cost legal assistance for victims of crime nationally.

Part of that collaboration includes developing and delivering a series of Webinar trainings designed to assist attorneys around the country with the tools needed to increase their knowledge base about crime victim issues, and increase their capacity to provide pro bono or no-cost legal representation to crime victims.

For additional information about the Initiative and to register for upcoming Webinars, please visit: <https://www.ovcttac.gov/>