The impact of trauma on health literacy

Neurobiology of Kindness

Maggie Bennington-Davis MD
We serve people exposed to trauma, violence, and overwhelming chronic stress, particularly as children, affecting neural development.

These experiences call forth a range of responses, including the easy triggering of fight/flight/freeze, intense feelings of fear, loss of trust in others, chronic hypervigilance, a decreased sense of personal safety, feelings of guilt and shame, and difficulty engaging in traditionally administered healthcare services.
Traumatization occurs when both internal and external resources are inadequate to cope with external threat.

Van der Kolk, 1989
Context Matters

Impact depends on:

- Single vs. repeated trauma
- Age when trauma occurs
- Agent – natural vs. human
- Nature of the trauma – accidental vs. purposeful
- Environmental/social supports
- Political/economic context
- Philosophical/religious/spiritual context
- The other things going on – “reserve”
- Innate resilience
**Trauma Informed Services**

- **Trauma-informed services** take into account an understanding of trauma in all aspects of service delivery and place priority on the individual’s safety, choice, and control. Such services create a treatment culture of nonviolence, learning, and collaboration.

- Utilizing a trauma-informed approach does not require disclosure of trauma. Rather, services are provided in ways that recognize the need for physical and emotional safety, as well as choice and control in decisions affecting one’s treatment. TIP is more about the overall essence of the approach, or way of being in the relationship, than a specific treatment strategy or method.
The intelligent brain

Prefrontal Cortex
Neocortex
memory

Prediction in novel situations

senses

Jeffrey Hawkins
Brains are built from the bottom up

700 new neural connections/second

Brain development most rapid in early months; continues through age 22

Sandra Bloom, MD
STRESS CONTINUUM

- Allostatic Load
- Traumatic
- Toxic
- Tolerable
- Positive

Sandra Bloom, MD
Females:
13% emotional abuse
27% physical abuse
25% sexual abuse

Males:
8% emotional abuse
30% physical abuse
16% sexual abuse

The ACE study findings suggest that certain experiences are risk factors for the leading causes of illness and death as well as poor quality of life.

It is critical to understand how the worst health and social problems in our nation can arise as a result of adverse childhood experiences. Realizing these connections is likely to improve efforts toward prevention and recovery.
The Questionnaire

**ABUSE**
- Physical
- Emotional
- Sexual

**NEGLECT**
- Physical
- Emotional

**HOUSEHOLD DYSFUNCTION**
- Mental Illness
- Incarcerated Relative
- Mother treated violently
- Substance Abuse
- Divorce

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Surveys given 1995-1997

Review of first results: “I wept… because of all the suffering, I wept”
Results

• 2/3 had experienced one or more types of adverse childhood experiences
• Of those, 87% had experienced two or more
• Direct link between childhood trauma and risk of adult onset of chronic disease, mental illness, doing time in prison, and work issues
• Linear relationship with medical, mental, and social problems, including the TOP TEN causes of death in the U.S.
Top Ten...

- Heart disease
- Cancer
- Chronic respiratory disease
- Stroke
- Unintentional injuries
- Alzheimer’s disease
- Diabetes
- Nephritis
- Influenza and pneumonia
- Suicide
The wear-and-tear on the body and brain resulting from chronic over-activity or inactivity of physiological systems that are normally involved in adaptation to environmental challenge.

Extreme poverty, repeated abuse or neglect,

Growing up in families facing economic hardship can produce elevated cortisol levels that may stay elevated even after conditions have improved.

Even infants and young children are affected by significant stresses that negatively affect their family and caregiving environments.
State of high alert
Action, not thought
Inability to think clearly
Extreme thoughts
Attention to threat
Intense and prolonged anxiety
Drive to take action

A DISASTER WHEN THIS BECOMES CHRONIC

Sandra Bloom, MD
Between Stimulus and Response

Stimulus

Sensory Thalamus

Very Fast

Hippocampus

Slower

Cortex

Amygdala

Response

(LeDoux, 1996)
Between Stimulus and Response

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(LeDoux, 1996)
Between Stimulus and Response

Stimulus → Sensory Thalamus → Cortex → Hippocampus → Amygdala → Very Fast Response → Slow Response

(LeDoux, 1996)
HYPERVIGILANCE...

• Changes the way you view the world – literally and neurologically

Hypervigilance is an enhanced state of sensory sensitivity accompanied by an exaggerated intensity of behaviors whose purpose is to detect threats.
People we serve

- May have tremendous exposure to events (trauma) especially as children
- that cause a wash of threat detection *all the time*

Those of us who serve them

- Have created ways of thinking about and perceiving the people we serve and their behaviors and our environments
- These patterns of thinking sometimes get in our way
- We must begin with ourselves!
What we see

• Disengagement
• Aggression and loss of impulse control especially in new or scary situations
• Inadvertent deterioration into power and control struggles
• Aggression and fear in the context of feeling powerless
• “Minor” events precipitating catastrophic reactions
MANY LABELS – LITTLE HELP

- Personality disorder
- Depression
- Generalized anxiety disorder
- Panic disorder
- Somatization disorder
- Oppositional disorder
- ADHD
- ETC
- ETC
- ETC

Sandra Bloom, MD
CHANGING THE FUNDAMENTAL QUESTION

It’s not “What’s wrong with you?”

It’s “What happened to you?”

Sandra Bloom, MD
What Does This Mean For Providers?

Somehow we must engage people into health services, relationships with health providers, and their own health.
What is Health Literacy?

- Ability to understand health information to make decisions about health care
- Limited health literacy results in poorer health care outcomes and higher costs of care
- Low health literacy can affect:
  - ability to fill out forms
  - locate providers and services
  - manage a chronic disease
  - adopt health behaviors
Who is Affected?

- Everyone!
- Most likely
  - Older
  - Non-white racial and ethnic groups, non-native speakers of English
  - Less than a high school/GED certificate
  - Low income levels
  - Compromised health status
- Not always be obvious
  - shame
  - don’t ask
  - misunderstand
Health Literacy

- Includes health numeracy (ability to calculate and understand blood pressure, cholesterol, A1C, insurance coverage, co-pays, nutrition labels, etc)

- How well can YOU remember things when you are hurt, sick, or scared?
78% people do not understand their discharge instructions... 80% of those don’t know they don’t understand

- Feel the thrill?
- Give 2 pills on an empty stomach
- As needed for pain
- Has a frog in his throat
- Three times a day with food

If you have a headache, do what it says on the aspirin bottle: Take two aspirin and...

— Roseanne Barr

[Handwritten notes: Noreprobazole. 400 mg. t. po qid. 20 mg. q. 4 hr. q. daily t. supper. Ectot bar. t. po only.]
Why?

- Communication includes non-verbal behaviors and environmental cues
- Emotional intelligence is sometimes lost in the pressure of time
- The “expert” tends to hear mostly him/herself
Physical Environments

- Have an impact on attitude, mood, heart rate, and behavior
- Strong link between physiologic state, emotional state, and the physical environment
- Natural environment promotes increased dopamine, faster healing, and less pain in surgical patients
- Pay attention to your environment, and how it may be affecting you and others!
How to Work with folks

- If person brings up traumatic history, don’t shy away from the topic
  - Listen, answer questions, offer comfort
- Be comforting and be nice
- Be sensitive about what disrobing may mean
- Be sensitive about physical touch
- Avoid any hint of coercion
- Listen, for what the person wants
- Talk, give information
- Offer opportunities for control

Bruce Perry, 1995
A Note on Welcoming

- First impressions: biology!
- Not triggering someone in the first place is the best scenario
- Create a relationship
- Offer something
- Keep the cortex engaged...
“I prescribed an inhaler for a patient’s cat allergy. He came back a week later saying he was none the better. Turns out, he was spraying the inhaler on the cat.”
• Artery - The study of paintings.
• Barium - What Doctors do when patients die.
• Caesarean Section - A neighborhood in Rome.
• Cauterize - Made eye contact with her.
• Colic - A sheep dog.
• Dilate - To live long.
• Enema - Not a friend.
• Fibula - A small lie.
• Genital - Not a Jew.
• Impotent - Distinguished, well known.
• Labor Pain - Getting hurt at work.
• Morbid - A higher offer.
• Nitrates - Cheaper than day rates.
• Node - Was aware of.
• Post Operative - Letter carrier.
• Seizure - Roman Emperor.
• Terminal Illness - Getting sick at the airport.
• Urine - Opposite of 'you're out'.
Language and Vocabulary

- refuses
- denies
- claims
- alleges
- failed
- noncompliant
Found in the medical record…

• Poor judgment
• Poor eye contact
• Poor historian
• Failed interventions
• Noncompliant
• Help rejecting complainant
• Refuses all interventions
• Alleges only one drink per day
• Claims has never used drugs
• Denies depression
Medical Speak

- Doctors, pharmacists, and others in medical professions use jargon, terminology, and abbreviations which make it difficult for patients to interpret and understand
  - ‘stable test results’
  - ‘positive test results’
  - ‘triglycerides are high’
  - ‘hypertension’
A man became irate during a medical examination when he looked at the doctor’s chart and saw that the doctor had written “Major S.O.B.”
Plain Language/Living Room Speak

• Understood first time
• Find what is needed, understand what is found, and act on that understanding
• Key elements of plain language
  – Most important points come first
  – Understandable chunks
  – Simple language and defined technical terms
  – Active voice
• Language that is plain to one set of readers may not be plain to others
• Avoid jargon
"Words have power. They have the power to teach, the power to wound, the power to shape the way people think, feel, and act toward others. When a stigmatized group of people is struggling for increased understanding and acceptance, attention to the language used in talking and writing about them is particularly important."

(Otto F. Wahl, Ph.D., The Bell, National Mental Health Association, June 1998.)
While acquainting myself with a new elderly patient, I asked, "How long have you been bedridden?" After a look of complete confusion she answered..."Why, not for about twenty years -- when my husband was alive."
Teach Back Techniques

• Use open ended questions. Instead of asking, "do you know what schizophrenia means," say, "tell me about your understanding of your diagnosis."

• Put the onus of miscommunication on you, the provider
  – "I want to be sure that I clearly explained how to take these medications. Can you please explain back to me what we just talked about?"
  – "We have talked a lot about adding exercise to your day. In your own words, can you tell me what we talked about and how you will add it to your day?"

• Chunk and check
  – Explain two of three main points for the first concept, then do a teach back before moving on

• Make sure the client understands before moving on
“Here,” says the nurse, handing the patient a urine specimen container. “The bathroom’s over there.” A few minutes later, the patient comes out of the bathroom.

“Thanks,” he says, returning the empty container. “But there was a toilet in there, so I didn’t need this after all.”
The Link with Heart Rate

- Ariah Shelev
- Roger Pittman
- Mindful meditation
- Keeping ourselves centered
Between Stimulus and Response

Stimulus

Sensory Thalamus

Very Fast

Cortex

Hippocampus

Slower

Amygdala

Very Fast

Response

Social Environmental Intervention

Cognitive engagement

Neuroregulatory Intervention

Psychopharmacology

(LeDoux, 1996)
A responsive environment will

- Facilitate physiologic calm
- Avoid triggering the fight/flight/freeze response
- Encourage thinking, problem-solving, decision-making, collaboration
WHAT IS REQUIRED?

Secure, reasonably healthy adults,

With good emotional management skills,

With intellectual and emotional intelligence,

Able to actively teach and be a role model,

Are consistently empathetic and patient,

Able to endure intense emotional labor,

Are self-disciplined, self-controlled, and

Never abuse power

Sandy Bloom, MD
Healthy Staff

- Reinterpret difficult behavior through the lens of trauma exposure
- Listen (really listen)
- Avoid over-reacting
- Avoid power struggles
- Lean into service
- Find the distress
- Open up communication
We...

- Often have our own stuff
- Will seek to avoid re-experiencing our own emotions
- Perceive behavior as threat or provocation directed at us rather than as re-enactment
- Perceive people’s actions as triggers for our own anger, fear, rejection, challenge of authority

Sandra Bloom
Developing a safe environment and atmosphere... How?

- What signals SAFETY?
  - Social
  - Physical
  - Moral
  - Cultural

- What signals DANGER?
  - Social
  - Physical
  - Moral
  - Cultural

- What are “universal triggers”?

- What are universal signs of welcome and respect?
Tips

- Practice keeping another person’s heartrate low
- Notice your facial expressions
- Notice the tone of your voice
- Notice your own triggers
- People’s stories are more important than anything

- What does health and illness mean to the patient?
- What is your patient’s theory about the symptom(s)?
- What is your patient’s philosophy about treatment?
LEAP

• Listen
• Empathize
• Agree
• Partner
“I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.”

Maya Angelou
Humans thrive on love and connection

• Get into your thinking brain
• Get your patients into their thinking brains
• Brains can be taught

• All in the context of enriched human interaction
Recap

- Trauma informed care acknowledges that people under stress are less able to make sense of the world around them other than as a threat.

- Health literacy is how well individuals are able to obtain, process, and understand basic health information needed to make appropriate health decisions and participate in their own wellness.

- Low health literacy is common and is directly related to poor health outcomes and higher health costs.

- Creating trauma informed environments can help ensure that people understand what you are saying.
You never know when you're making a memory...

--Rickie Lee Jones
Questions?