Behavioral Health is Essential To Health

Prevention Works

Treatment is Effective

People Recover
Enhancing Recovery in a Trauma Informed System of Care

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Promoting Alternatives to Use of Seclusion and Restraints through Trauma Informed Practices
What is Trauma?

- **Definition** *(NASMHPD, 2006)*
  - The experience of violence and victimization including sexual abuse, physical abuse, severe neglect, loss, domestic violence and/or the witnessing of violence, terrorism or disasters

- **DSM IV-TR** *(APA, 2000)*
  - Person’s response involves intense fear, horror and helplessness
  - Extreme stress that overwhelms the person’s capacity to cope
Types of Trauma

- Pre and Perinatal Trauma
- Single Episode Trauma
- Developmental or Complex Trauma
- Historical Trauma
- Intergenerational Trauma
Traumatic Events:

(1) render victims helpless by overwhelming force;
(2) involve threats to life or bodily integrity, or close personal encounter with violence and death;
(3) disrupt a sense of control, connection and meaning;
(4) confront human beings with the extremities of helplessness and terror; and
(5) evoke the responses of catastrophe.

(Judy Herman, Trauma and Recovery, (1992)}
What does trauma do?

- Trauma shapes a child’s basic beliefs about identity, world view, and spirituality.
- Using a trauma framework, the effects of trauma can be addressed and a person can go on to lead a “normal” life.
What does the prevalence data mean?

- The majority of adults and children in mental health treatment settings have trauma histories as do children and adults served in a variety of other behavioral and justice settings.
- There appears to be a strong relationship between victimization and later offending.

(Hodas, 2004; Frueh et al, 2005; Mueser et al, 1998; Lipschitz et al, 1999; NASMHPD, 1998)
Therefore ...

We need to presume the clients we serve have a history of traumatic stress and exercise “universal precautions”

(Hodas, 2004)
Prevalence in the General Population

- 90% of public mental health clients have been exposed to trauma.
- In the general population, 61% of men and 51% of women reported exposure to at least one lifetime traumatic event, but majority reporting more than one traumatic event.

(Kessler, et al, 1995)
Avoidance of Shame and Humiliation

THE BASIC PSYCHOLOGICAL MOTIVE OR CAUSE OF VIOLENT BEHAVIOR IS THE WISH TO WARD OFF OR ELIMINATE THE FEELINGS OF SHAME AND HUMILIATION – A FEELING THAT IS PAINFUL AND CAN EVEN BE INTOLERABLE – AND REPLACE IT WITH A FEELING OF PRIDE.

Hodas, 2004
Trauma Sensitive

Person Served

Trauma Assessment And Treatment

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Trauma Informed Care

Trauma Sensitive

Person Served

Trauma Assessment And Treatment

Universal Precautions

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Person Served

Trauma Sensitive

Trauma Assessment and TX

Universal Precautions

Collaboration

Non-Coercive

Non-Controlling

Partnerships

Hope

Healing

Resiliency

Recovery

Trauma Informed System

Trauma Informed Care

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“What happened to you?” instead of “What’s wrong with you?”
- All behavior has meaning
- Symptoms are ADAPTATIONS
- Comfort vs. Control
The Brain Matters

- The human brain is the organ responsible for everything we do. It allows us to love, laugh, walk, talk, create or hate.
- The brain - one hundred billion nerve cells in a complex net of continuous activity - allows us our humanity.
- For each of us, our brain’s functioning is a reflection of our experiences.
The biological unit of survival for human beings is the clan.

Evolutionary pressure which resulted in our species was applied to the clan, not the individual.

We are unavoidably inter-dependent upon each other.
The compartmentalization of Western life

- Separate by age
- Separate by wealth
- Separate by work
- Separate in education, by profession
- Separate by transportation
- Separate by generation
- Separate by ethnicity, religion, race
Decrease in Size of Households

Privacy and Isolation

![Graph showing the decrease in size of households from 10,000 BC to 2000.](chart.png)
Developmental Stages

- Emotional Regulation for infants
- Maternal dyad
- Repetitive, patterned interaction to hardwire self-regulation
- Exploration of individual self, tentative independence, tolerating manageable separations
- Independence
<table>
<thead>
<tr>
<th>Brainstem</th>
<th>Blood pressure</th>
<th>Body temperature</th>
<th>Heart rate</th>
<th>Arousal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diencephalon</td>
<td>Motor regulation</td>
<td>Affect regulation</td>
<td>Hunger/satiety</td>
<td>Sleep</td>
</tr>
<tr>
<td>Neocortex</td>
<td>Abstract Thought</td>
<td>Concrete Thought</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affiliation</td>
<td>Attachment</td>
<td>Sexual Behavior</td>
<td>Emotional Reactivity</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family and Friends</td>
<td>Peers, Teachers</td>
<td>Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caregiver</td>
<td>Mother</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Bottom-Up Responses

Amygdala
Becomes “irritable”, Increasingly sensitive to triggers

Prefrontal Cortex
Frontal lobes shut down or decrease activity to ensure instinctive responding

Thalamus
Ability to perceive new information decreases

Triggering Stimulus

(Restak, 1988)
Lateral Ventricles Measures in an 11 Year Old Maltreated Male with Chronic PTSD, Compared with a Healthy, Non-Maltreated Matched Control
Between Stimulus and Response

Stimulus → Sensory Thalamus → Cortex → Hippocampus → Amygdala → Response

Very Fast: Sensory Thalamus to Cortex

Slower: Cortex to Hippocampus

S Stimulus

Response (LeDoux, 1996)
Between Stimulus and Response

Social Environmental Intervention

Neuroregulatory Intervention

Psychotherapy

Psychopharmacology

Sensory Thalamus

Hippocampus

Cortex

Very Fast

Amygdala

Very Fast

S Stimulus

Response

(LeDoux, 1996)
## Program Interventions
Based on Bruce Perry’s Sequential NeuroDevelopment

<table>
<thead>
<tr>
<th>Brainstem</th>
<th>Regulation of arousal, sleep and fear states</th>
<th>Rhythmic and patterned sensory input</th>
<th>Attuned responsive care giving</th>
<th>Massage Rhythm (e.g. drumming) Reiki touch EMDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diencephalon</td>
<td>Integration of multiple sensory inputs Fine motor control</td>
<td>More complex rhythmic movement Simple narrative Emotional and physical warmth</td>
<td>Music and movement Reiki touch Therapeutic massage Equine or canine interactions</td>
<td></td>
</tr>
</tbody>
</table>
## Program Interventions cont.

<table>
<thead>
<tr>
<th>Limbic</th>
<th>Emotional states</th>
<th>Complex movement</th>
<th>Play and play therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social language; interpretation of non-verbal information</td>
<td>Narrative Social experiences</td>
<td>Performing and creative arts and therapies Parallel play</td>
<td></td>
</tr>
<tr>
<td>Cortex</td>
<td>Abstract cognitive functions Socio-emotional integration</td>
<td>Complex conversation Social interactions Exploratory play Solitude, satiety, security</td>
<td>Storytelling Drama Exposure to performing arts Formal education Traditional insight-oriented or cognitive-behavioral interventions</td>
</tr>
</tbody>
</table>
How Our Bodies Respond to a Real or Perceived Threat or a Trigger

- Hypothalamus-Pituitary-Adrenal Axis (HPA) Brings body into balance
  - Sympathetic Nervous System
    - Fight, Flight or Freeze
      - Heart rate
      - Sweat response
      - Energy increase
Our Body’s Chemical Response

- **Cortisol**
  - Regulation of the Adrenalines
  - Increase of energy

- **Adrenalines**
  - Fight or flight
  - Sharpens our focus and stimulates memory
  - Increases blood pressure and heart rate
  - Shunts blood away from systems that are not needed in danger response to the brain and muscles
Our Body’s Chemical Response 2

- Our natural Opioids
  - Prevents experiencing the pain
  - Prevents memory consolidation
- Oxytocin
  - Inhibits memory consolidation
- Vasopressin
  - Prevents dehydration
Inverted “U” Response

• At optimum levels, the biochemical changes allow us to function at a higher capacity during stressful events. However, if the stress continues too long or is too overwhelming, functioning becomes impaired rather than enhanced.
Stress Chemicals During the Trauma and Subsequent Triggered Periods Result in:

- Biochemical changes during and after the traumatic event
- A change in memory functions during and after the event
Biochemical changes during and after the traumatic event

- Adrenaline levels are chronically increased resulting in constant hyperstress and inability to distinguish danger signals
  - Inability to sleep, flashbacks, trouble with concentrating
  - Shuts off the brain
Biochemical changes during and after the traumatic event

- Cortisol- Chronically low or high levels - results in reduced immune functioning, impaired regulation of the adrenalines, and damage to passages in the brain responsible for memory
  – While high, cortisol, thins stomach lining and bones, impairs the immune system, decreases blood flow to the intestines.
Biochemical changes during and after the traumatic event

- Damage of the neuroreceptors that control the stress response

- Increase of receptors for cortisol, with the result that it is easier to be triggered
  - Vicious cycle - less able to switch off the stress, which produces more of the stress hormones that damage the neuroreceptors that control the stress response....
Serum Cortisol

- Cortisol Response to a Cognitive Stress Challenge in PTSD Related to Childhood Abuse

**Finding:** There were elevated levels of cortisol in both the time period in anticipation of challenge (from time 60 to 0) and during the cognitive challenge (time 0–20). PTSD patients and controls showed similar increases in cortisol relative to their own baseline in response to the cognitive challenge. (Bremner, Vythilingam, et al 2002)
More on changes as the result of too much stress

• Chronically high cortisol levels
  – Insulin resistance, poor sleep patterns – reinforces bad eating habits – no energy to exercise
  – Can produce cytokines, a protein that promotes inflammation – linked to heart disease, depression, arthritis and fibromyalgia
  – Impacts regulation adrenalinnes – implications for hippocampus and addiction
Biochemical changes during and after the traumatic event

- Increased opioid levels during traumatic memory triggers – equivalent of 8 mg morphine
- Acoustic startle response (when ya jump at loud, unexpected noises)
- Vasopressin - stress headaches?
- Oxytocin - Damage to traumatic memory recall. Bonding to a perpetrator
- Reduction of the hippocampus
Stress and Weight Gain

• Mice under stress gained extra weight even if their caloric intake didn’t go up. Mice doubled in size over three months. Important to include exercise in any weight loss program as exercise reduces stress hormones.

  • Dr. Zofia Zukowska, Georgetwon University as quoted in Parade 12/2/07
Trauma and Memory

- State-dependent Learning
- Amygdala - Implicit Memory - memory not available to conscious awareness, storage of senses and emotions. This memory can only be triggered.
- Hippocampus - Explicit Memory - conscious memory - remembering facts, recording events, logical thinking, reasoning capabilities
Impact on Memory

• Lack of memory consolidation between the amygdala and hippocampus
  – Pet scan research of trauma victims, amygdala fully lit
  – results in a sensory memory with no anchor in time or fact
  – Consistent “acoustic startle response”

• Loss of volume of the hippocampus
  – Associated with dissociation & lost sense of self.
Impact on Memory 2

• Cues which trigger the original trauma result in a partial or complete shut down of the hippocampus and activation of the amygdala

• Traumatic memory can become locked in an emotional/sensory state
  – The brain is use dependent - the traumatic state can become “normal”
Gender Differences in the Trauma Response

- Females - tend to dissociate and paradoxically, trauma bond
- Males - fight or flee, exert power and control
- However - Both sexes will experience power and control and difficulties with species preservative behavior if the traumas and/or triggers continue too long
Gender Differences in Trauma Response 2

- Females - Tend and Befriend
  - Shelley Taylor, UCLA
- The role of our hormones
  - Estrogen amplified the effects of oxytocin
  - Androgens diminish the effects of oxytocin
Girls and Boys are Different 3

- Estrogen activates a larger field of neurons in women’s brains during an upsetting experience so they experience the stress in greater and more precise detail.
  - Dr. Marianne J. Legato, Columbia University, Reader’s Digest Mar. 08
Women and stress

• Unresolved trauma has been identified as the biggest health threat to women.
  • 2001 – SAMSHA Conference on Women’s Health
Implications for Children

- EXPERIENCE CAN CHANGE THE MATURE BRAIN - BUT EXPERIENCE DURING THE CRITICAL PERIODS OF EARLY CHILDHOOD ORGANIZES BRAIN SYSTEMS!
  – From Bruce Perry, Trauma and Brain Development
Essentials of System Change

- Historical and Intergenerational Trauma
- Organizational and Staff Trauma
- Vision congruence
- Workforce development and support
- Redefining roles especially direct care staff
- Rediscovering the sense of community
- Cross service trainings
- PREVENTION, PREVENTION, PREVENTION

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2009 GALLUP POLL

EMPLOYEE ENGAGEMENT INDEX

• 33% - Engaged in their jobs
• 49% - Are not Engaged
• 18% - Actively Disengaged
A Culture Shift: The Core Principles of a Trauma-Informed System of Care

- **Safety**: Ensuring physical and emotional safety
- **Trustworthiness**: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- **Choice**: Prioritizing consumer choice and control
- **Collaboration**: Maximizing collaboration and sharing of power with consumers
- **Empowerment**: Prioritizing consumer empowerment and skill-building

(Fallot 2008)
Components of Workforce Development

• Training
  Safety

• Staff support and appreciation
  Safety
  Choice

• Staff autonomy
  Collaboration
  Empowerment

• Accountability and Personal Responsibility
  Trustworthiness
Healing Organization/ System

❖ Adjective
   An organization whose mission is to help people get well.

❖ Verb
   An organization actively restoring its health, making itself whole.
Trauma Symptoms = Tension Reducing Behaviors

“How do I understand this person?”

rather than

“How do I understand this problem or symptom?”

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Adaptive Responses to Overwhelm

Traumatic Event

- Agitation
- Hopelessness
- Intrusive Memories
- Nightmares
- Shame & Self Hatred
- Somatic Symptoms
- Dissociation
- Self Destructive Behavior
- Eating Disorders
- Substance Abuse
- Generalized Anxiety
- Panic Attacks
- Depression
- Numbing
- Hypervigilance

Fisher, 2005
There is no single diagnosis

People with abuse and trauma histories face a range of mental health issues including:

- Anxiety
- Panic attacks
- Depression
- Substance abuse and dependence
- Personality disorders (especially borderline personality disorder)
- Dissociative identity disorders
- Psychotic disorders
- Somatization
- Eating disorders
- Post-traumatic stress disorders


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What is the Adaptive Intent...?

• **Burning and Cutting**...protect from vulnerable feelings

• **Substance Use**...numbing, distraction from memories; “I just want to feel better.”

• **Under eating**...maintain sense of control

• **Over or binge eating**...masks anxiety, compensates for feelings of unworthiness

• **Hypervigilance**...ensure safety at all times

• **Hopelessness**...avoidance of success/failure

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Traditional Human Services Paradigm

• Understanding of the Consumer/Survivor
  – Each separate service system has its own view of the consumer and her or his problems
  – The consumer’s problem is understood as an individual problem independent of context
  – The problem and the symptom are synonymous
  – The consumer is often attributed either too little or too much responsibility

From Fallot’s Presentation on “Trauma – Informed Services, Long Beach 2008
Trauma-Informed Human Services Paradigm

• Understanding of the Consumer/Survivor
  – An integrated, whole person view of individuals and their problems and resources
  – “Symptoms” are understood not as pathology but primarily as attempts to cope and survive; what seem to be symptoms may more accurately be solutions
  – A contextual, relational view of both problems and solutions
  – Appropriate and collaborative responsibility allocation
Traditional Human Services Paradigm

• Understanding of Services
  – The primary goals of services are stability and the absence of symptoms
  – Services are often crisis driven
  – Service time limits are economically and administratively driven
  – Services are chosen in order to minimize risk and provider liability
Trauma-Informed Human Services Paradigm

• Understanding of Services
  – Primary goals are empowerment and recovery
  – Survivors are survivors; their strengths need to be recognized
  – Service priorities are prevention driven
  – Service time limits are determined by survivor self-assessment and recovery/healing needs
  – Risk to the consumer is considered along with risk to the system and the provider

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Traditional Human Services Paradigm

- Understanding of the Service Relationship
  - Hierarchical provider/consumer relationship
  - Provider is presumed to have a superior knowledge base
  - The consumer is seen as a passive recipient of services
  - The consumer’s safety and trust are taken for granted
Trauma-Informed Human Services Paradigm

• Understanding of the Service Relationship
  – A collaborative relationship between the consumer and the provider of her or his choice
  – Both the consumer and the provider are assumed to have valid and valuable knowledge bases
  – The consumer is an active planner and participant in services
  – The consumer’s safety must be guaranteed and trust must be developed over time

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From this
“In the patient let me ever see only the person.”

-- From the Oath of Maimonides
(Moses Maimonides 1135-1204)