LESSONS FROM THE FIELD: TRAUMA, TEENS AND BUILDING PROTECTION

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Anne R. Gearity, PhD, Moderator

All children are vulnerable to immediate and ongoing effects of trauma. Teens, given their emerging developmental resources, may have some intrinsic protection, but are also at greater risk if they seem “challenging” to their families and communities.

In adolescence, risks and protections can often be one and the same. What makes teens challenging is their ability (or lack of ability) to see their own possibilities. By definition, adolescence is a challenging time, given the rapid changes in body and mind, as well as the increasingly demanding expectations of the social world that they adapt to rapidly changing societal norms and complexities.
Trauma leaves teens feeling more powerless and ineffective than their peers. We know that stress is inevitable, and necessary for development.

But stress that is too much, for too long and with too little adult mediation leaves children and teens at risk. Teens with history of trauma often try to manage this vulnerability by taking charge of their own lives. This is a positive effort, but trauma often robs them of necessary capacities to make this work.

These teens have struggled with adversity. Many have lost the chance for an easy transition into adulthood. Interventions cannot change their pasts, but may be able to better prepare them for their own futures. To set the frame for this discussion, I offer three protections* that research identifies as predicting resilience. Listen to the presenters with these qualities in mind, to see if it might be possible to aim our interventions to build these capacities, so that interventions mediate risk and support resilience.

AGENCY AND QUEST FOR MASTERY

REFLECTIVE CAPACITY/ LOOKING INWARD

CARING ABOUT RELATIONSHIPS

* Adapted from Hauser, Allen et.al. (2006), Out of the Woods; Tales of Resilient Teens; this qualitative study draws from an extensive longitudinal study of troubled teens.

Agency and a quest for mastery:

• They believe they can influence their environment
• Optimistic bias: "inspire confidence, but also soften the inevitable failures and setbacks that accompany any bold course."
• Active agents in their own lives: "how a resilient process may be operating powerfully underneath exactly the kind of behavior that would most seem to controvert it."
Reflection is more than just noticing what one feels...it's an effort to make sense out of feelings...it is the ability to think about one's thought processes...They observe what goes on in their heads."

"The resilient kids suspect early that the inner world requires as much skill as the external environment...and they make active efforts to learn how to manage it.

"When the resilient kids get scared, they hone their survival skills; they don't waste much effort hoping to escape the rigors of life."

Resilient kids retain an interest in forming new relationships (or reforming old ones that is apparently boundless, and their skill in relationships grows..."But in their narratives, there is nothing one-dimensional about the relationships. There are conflicts, complications, far from discrediting them, make them all the more intriguing, (These narratives honor the complexities of real people, they lure the kids to deeper understandings...

"Resilient teens don't just stumble onto better relationships from other kids; they take themselves to where the action is...the availability of caring adults is only part of the problem; the capacity of troubled kids to make use of them is the rest."

As we proceed:

• Consider adolescents who you are working with;
• apply these three protective capacities to the different research and intervention models;
• listen to these ideas, and consider how they might alter your work with teens;
• and together let us leave this Lessons from the Field with increased clarity and confidence that teens can benefit from our support.
Adolescent Brain Development: Setting the Stage for Reflection, Personal Agency, and Relationship Success

Monica Luciana, PhD
Department of Psychology and Center for Neurodevelopment
University of Minnesota

Take-home #1
Numerous brain-based changes occur during adolescence to promote efficient information transfer & connectivity between regions

Important Neurodevelopmental Processes
1. Formation of neurons (brain cells) and their migration to appropriate sites in the brain (prenatal and early infancy)
2. Synaptogenesis: formation of functional connections between neurons (infancy and early childhood)
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3. Myelination: adding insulation to the white matter fibers that link neurons to one another (childhood and adolescence)

4. Synaptic Pruning: eliminating connections that are unused (adolescence into adulthood)

5. End Result = a better connected brain; integrated behavior
Important Brain Processes in Adolescence

USE IT OR LOSE IT

BLOSSOMING AND PRUNING

MAINTENANCE OF THE DEVELOPMENTAL TIMELINE IS IMPORTANT; THESE PROCESSES UNFOLD IN ORDER FOR A REASON

One behavior is
Reflective capacity = the capability of quiet thought or contemplation; thinking before acting

REFLECTIVE CAPACITY AND FRONTAL LOBE DEVELOPMENT

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Take-home #2
Frontal lobe development supports reflective capacity: flexibility, control, decision-making, and empathy.

WHAT ABOUT MOTIVATION?
Elevated reward system responses to happy faces (Somerville et al., 2010)

Motivation provokes action!
Agency = the capacity, condition, or state of acting or of exerting power

This translation of motivation into self-directed action is a core function of the brain’s reward system.

The adolescent’s ability to achieve a sense of personal agency represents a critical life task which promotes independence.

A sense of agency in the context of relationships is particularly important.
Effects of Peers on Adolescent Behavior and Brain Activity

1. Adolescents find relationships with peers to be strong sources of reward.

2. Adolescents make more risky decisions in the presence of peers vs. adults (Gardner & Steinberg, 2005).

3. Adolescents show more activity in the reward system when peers are present than do adults (Chein et al., Developmental Science, 2011).

4. These effects may be hormonally primed during puberty (Steinberg, 2010).

Take-home #3
Motivational systems are in a state of functional “overdrive” to support reward seeking, peer relations, and personal agency.

What happens in the context of trauma?
These processes are altered at both behavioral and brain levels.
Stress results in decreased dendritic branching of neurons in the CA3 region of the hippocampus (Woolley et al. 1990).

Hippocampal Volume Reduction in PTSD

Implications for Adolescent Brain Development

- Accelerated loss of synapses in regions that promote cognition and control
- More exuberant activity within emotional systems
- Difficulties with behavioral regulation

COGNITION  MOTIVATION  REGULATION

Take-home #4
Group-based development sets limits or boundaries. Individuals vary in their strengths and weaknesses within these boundaries; the basis of resilience as well as vulnerability
Take-home #5
A developing brain is a malleable and receptive brain:
Experience impacts further brain development and subsequent behavior.

Q&A:
- Anne Gearity
- Monica Luciana
Char Myklebust, PsyD

Executive Director of Mental Health and Partnerships in Intermediate District 287
What is Social Emotional Learning?

- Self-management
- Self-awareness
- Social awareness
- Responsible decision-making
- Relationship skills

SEL Significantly Improves:

- Social emotional skills
- Attitudes about self and others
- Attitudes towards school
- Social interactions
- Academic performance
- Being a good team member

What are the components of evidence-based school-wide SEL programming?
Other Programs that Support SEL:

- Teacher education – mental health
- Collaborative Problem Solving
- Mindful Education
- Character Education
- Anti-bullying Programs
- Positive Behavior Interventions and Support (PBIS)

Trauma Principle #1:

It is the child’s experience of the event, not the event itself, that is traumatizing.
Trauma Principle #2

Trauma = chaos
Structure = Healing

Trauma Principle #3

If you don’t ask, they won’t tell

The Maze of (Mis)Diagnosis

Oppositional Defiant Disorder?  PTSD?
Depression?  Substance Abuse?
ADHD  Conduct Disorder?  OCD?
Anxiety?  Bipolar Disorder?  Personality Disorder?  Attachment Disorder?
Q&A:
• Char Mykelbust
• Ed Frickson
THE ROLE OF LIFESTYLE in STRESS and COPING

Nimi Singh, MD, MPH
Division of Adolescent Health and Medicine
U of MN Amplatz Children’s Hospital

STRESS RESPONSE:
- Evolutionarily advantageous
- Blood shunted to organs critical for survival (heart, lungs, muscles, brainstem)
- Blood gets shunted away from everywhere else (GI tract, immune system, prefrontal cortex)
- Gets triggered by negative thoughts (past/future)
- Shuts off automatically when we’re in balance
- We “get stuck” when body is out of balance

PSYCHOLOGICAL EFFECTS OF STRESS
- Increased arousal, alertness, vigilance
- Everything looks like a potential threat to survival
- Maximizes ability to stay alive in life-threatening circumstances
- Inhibition of higher (cortical) mental activity
- Inability to think (thinking is reflexive, not reflective)
- Unable to take in and process new information as easily
- Chronic repetitive negative thoughts can become:
  - Anxiety disorders
  - Depression
  - PTSD
- Harmful/addictive behaviors: an attempt to "quiet the mind"
  - Drug and alcohol use
  - Cutting behavior

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SHUTTING OFF STRESS: Optimizing lifestyle

SELF-REFLECTION SKILLS: Cognitive therapies Mindfulness therapies Self-regulation therapies

CRITICAL FIRST STEPS: Good sleep hygiene Optimal nutrition Physical activity Recreational activities

SLEEP:
2003 National Survey of Children’s Health: 15 million children/adults experience sleep
Risk factor for anxiety and depression
Anxiety and depression lead to poor sleep quality and quantity

Optimal hours of regenerative sleep: 10pm -2am

What interferes?
- School schedules
- Intellectually stimulating activities (TV, internet, reading)
- Caffeine-containing foods and beverages

What helps?
- Limit daytime naps
- Sleep environment (quiet, dark, no distractions)
- Sleep routine (meals/snacks two hours before sleeping, soothing rituals)

NUTRITION:
Brain: 3% body weight, but consumes 20% of calories

Effects of breakfast:
- Protein plus complex carbohydrate plus OTTA’s
- Whole foods
- Omega fatty acids (EPA/DHA)
- Vitamin D (deficiency is common)
- Water: 2004 Institute of Medicine

WHOLE FOODS vs. PROCESSED FOODS
- Dark leafy greens, colorful produce
- Whole grains, nuts, seeds
- Minerals: Calcium, Chromium, Iodine, Iron, Magnesium, Manganese, Zinc, Copper, etc.

Other brain nutrients:
- Omega fatty acids (EPA/DHA)
- Vitamin D (deficiency is common)
- Water: 2004 Institute of Medicine
PHYSICAL ACTIVITY:
Over 18,000 studies on exercise and mental health

The best exercise? One the individual enjoys, and will maintain over time
Ideally: 3-5 times a week, 20-30 minutes ideal

Mechanism of action?
- Increases blood flow, increasing O2 and nutrients
- Reduces inflammation
- Alters brain chemistry
- Improves sleep

Positive findings in research:
- Aerobic activity (including brisk walking)
- Strength-training
- Yoga

RECREATION:
Hobbies (music, art, etc.)

Quiet unstructured time

Being in nature: Richard Louv (Journalist)
- "Last child in the woods"
- "The Nature Principle"

Creative play: Stuart Brown, MD
- "Play: how it shapes the brain, opens the imagination and invigorates the soul"

Healing the Generations
How Can We Best Serve American Indian Adolescents and Children?

Antony L. Stately, Ph.D., LP
Clinical Psychologist

Director, Mental & Chemical Health/EAP
Shakopee Mdewakanton Sioux Community
March 29, 2012
Historically Traumatic Events

- Anger
- Depression
- PTSD
- Cultural Shame
- Substance Abuse & Maladaptive Coping
- Trauma & Ethnic Dedications
- Violence
- Stress
- Community
- Family
- Individual

Adapted from Johnson Model of Multigenerational Trauma
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Summary remarks: