



Promoting Resiliency

"It's Not Rocket Science, It Is Brain Science: The Magic of Resiliency"
Horacio Sanchez

The Four Underpinnings of Human Behavior



HEREDITY
"Where you start"



TEMPERAMENT
"How you react"



EXPOSURE
"What you adjust to"



HIGH EMOTIONAL EXPERIENCES
"What you do when stressed"

HEREDITY
"Where you start"



Result of Chemical Imbalance

- Emotional problems
- Physical problems
- Cognitive problems
- Delayed milestones
- Language deficits
 - Dorothy Otnow Lewis, M.D.

How Does the Brain Naturally Manage Hereditary Issues?

- Compensation
 - Heighten other senses
 - Develop alternate pathways to restore functions
- Learned two things
 - Brain naturally uses stronger regions to help compensate

- Long-term compensation leads to improved brain structure
- Neurogenesis – Elizabeth Gould
- Any treatment design or setting that allows stress to be pervasive will fail
 - When it appears successful, the individual was healthy

TEMPERAMENT

“How you react”

How One Reacts to Stimuli

- What are some teaching strategies that should be implemented if you want to have success with this profile?
- What are some management strategies that should be implemented if you want to have success with this profile?



EXPOSURE

“What you adjust to”



Exposure Rule

- Poverty—60% of trips taken are within a three mile radius
Muradami & Young
 - Regional brain development
 - Limited clusters to build on
 - Anxiety based on limited areas of comfort

Achievement

Well Rounded Exposure

Great Genetics

Average Genetics

Poor Genetics

Poor Exposure

Failure

“How much and how often” is determined by heredity and temperament

Implications

- New learning must be built on what is already known
- True rehabilitation safely exposes individuals to a larger world
- Insufficient exposure will hinder understanding of the world and systems
- Insufficient exposure will slow tolerance of social and cultural differences

HIGH EMOTIONAL EXPERIENCE:

“What you do when stressed”



Crisis

Stress

Great Genetics

Average Genetics

Poor Genetics

The Amygdala

- Amygdala is the pharmacist of the brain
 - Our brain works by chemical transference
- There are automated chemical responses
 - Certain gestures or movements result from certain chemical configurations
 - Certain responses to identified stimuli were so hardwired that it is predictive of the emotional condition
- Amygdala is in charge of crisis response
- Because the amygdala’s role is survival, all stimuli passes through it

Simply Put – All Stimuli Are Seen through the Filter of Emotion (Amygdala)

- Every expression seen or done is processed through the amygdala, triggering different levels of emotional response and dictating behaviors
- Posture, gesture, movement, touch, sound, and taste are all processed through the amygdala
- The level of emotion dictates behaviors

Before the Evolution of the Cortex

- The cortex is the part of the brain that allows for learned behaviors as opposed to just emotional response
- Cortex is the part of the brain that makes us rational; it has undergone massive growth
 - Leading some to believe that man has become a rational being
- Two problems w/ the theory
 - Anthropologists have noted that our nonverbal communication is also still evolving (*Bateson 1968:614*)
 - While man has the biggest cortex – making him the most rational creature on the face of the earth
 - Man also has the biggest amygdala – making him the most emotional and impulsive creature on the face of the earth
- Amygdala seizes control of all behaviors when the stimuli is perceived emotionally – *hypersensitive*

A MODEL FOR TREATMENT AND REHABILITATION RESILIENCY THEORY

Is applicable across race, cultures, disabilities and presenting problems

It is based on sound research

Provides the concrete indicators of chemical brain function

Definition: High Risk Youths

At Risk for What?

- School failure
- Criminal involvement
- Mental illness
- Substance abuse
- Incarceration
- Vocational instability
- Poor health
- Failed relationships

RESILIENCY THEORY

What Is A Risk Factor?

Three types

- Hereditary
- Acquired



- Eliminated
- Permanent
- Perceptual

Impacts the way the mind & body develop

Impacts the way an individual interacts with his or her environment

RISK FACTORS

In the Child

- Fetal drug/alcohol effects
- Premature birth or complications
- Difficult temperament
- Shy temperament
- Neurological impairment
- Low IQ < 80
- Chronic medical disorder
- Psychiatric disorder
- Repeated aggression
- Substance abuse
- Delinquency
- Academic failure



Family Characteristics

- Low socioeconomic status
- Large family with 4 or more children
- Siblings born within 2 years of child
- Parent with depression
- Parent with substance abuse
- Parent with criminality

Family/Experiential

- Poor infant attachment to mother
- Long-term absence of caregiver in infancy
- Witness to extreme conflict or violence
- Neglect
- Separation /divorce/single parent
- Negative parent-child relationship
- Sexual abuse
- Physical abuse
- Removal from home
- Frequent family moves
- Teen pregnancy



What Did We Learn About Risk Factors?

- A risk is a risk
- Not which risk but how many
- Risks snowball
- Risk factors impact emotional and physical development as well as one's neurobiology

THE RESILIENT POPULATION

What Is A Protective Factor?

Three types

- Hereditary
- Acquired
 - Eliminated
 - Permanent
- Perceptual

Impacts the way the mind & body develop

Impacts the way an individual interacts with his or her environment

PROTECTIVE FACTORS

Qualities of the Child

- Positive temperament, adaptable, “easy baby”
- Autonomy and independence as a toddler
- Problem solving skills at school age
- Gets along with others
- Interpersonally engaging, “likable”
- Sense of humor
- Empathy
- Perceived competencies
- IQ > 100
- Good reader
- Internal locus of control as a teenager
- High hopes and expectations for the future



Family Characteristics

- Lives at home
- Positive attachment with parents
- Perception of parental warmth
- Inductive, consistent discipline by parent
- Established routines in the home

Social Support from Outside the Family

- Adult mentor for child outside immediate family
- Extra adult help for caretaker of family
- Support for child from friends

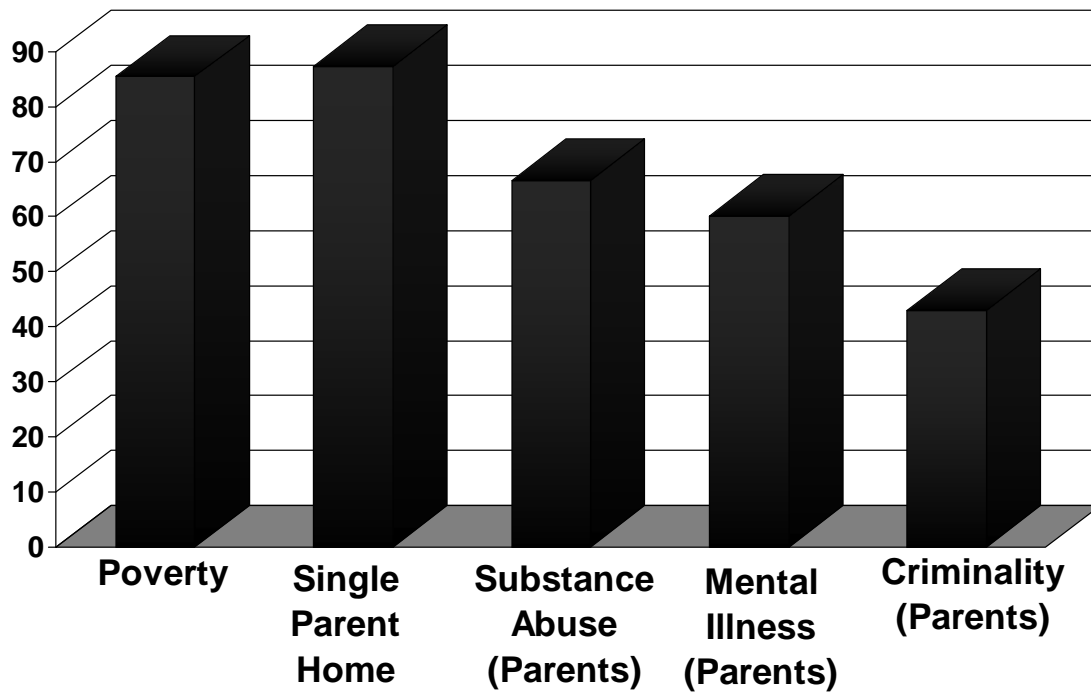
- Support for child from school
- Support for family from church
- Support for family from work place

What Did We Learn About Protectives?

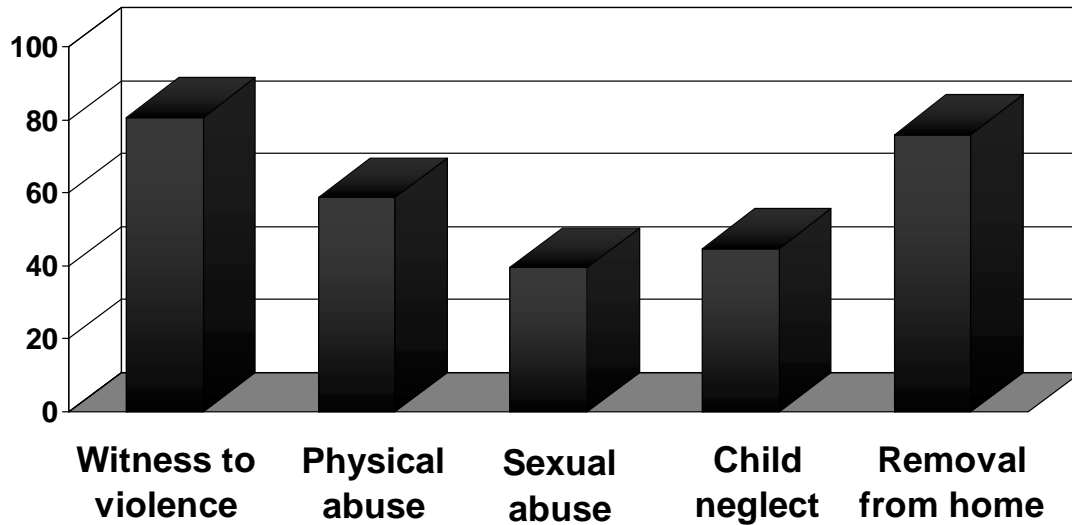
- Need enough protectives to offset risk
- Protective factors snowball
- Protective factors improve brain function
- One universal protective

STUDIES ON THE MOST AT RISK YOUTH IN NORTH CAROLINA

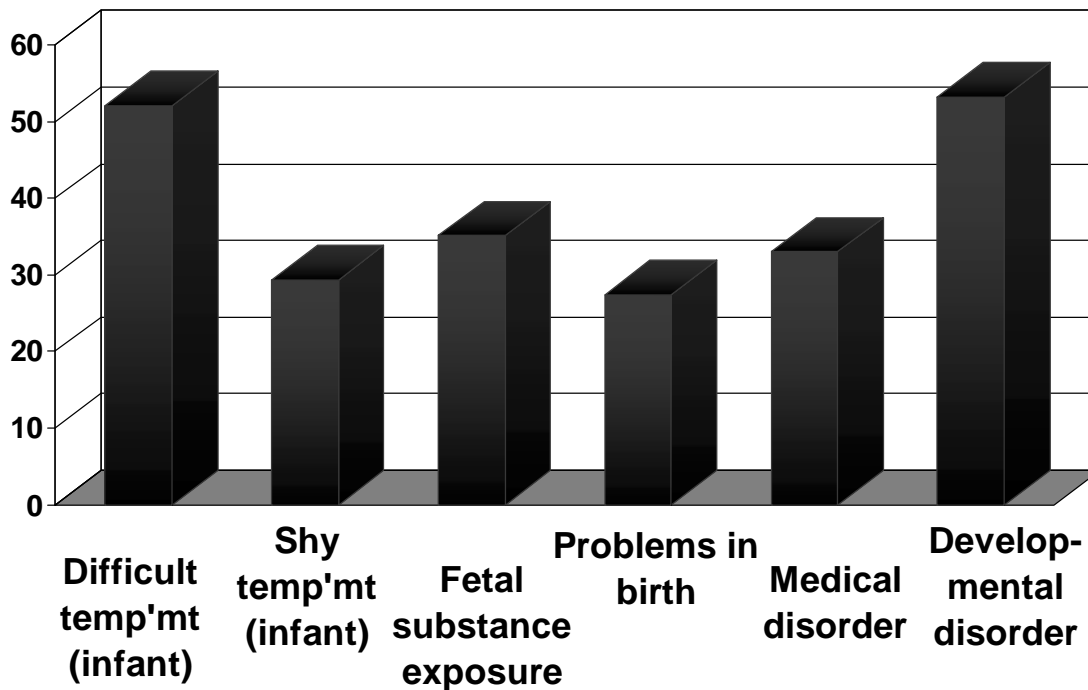
Risks Associated With Family



Traumatic Life Experiences



Child-Specific Risks



Discipline

- 60% of people in the world inherently follow rules

- 20% of people in the world need the rules to be consistently present and enforced
- 10% of the world need the rules to be consistently present and enforced for an extended period of time
- 10% of people in the world are prone to violate rules and norms

Build Capacity by Promoting Protective Factors

Character education through specific actions

- Correctional institutions should focus on the building of protectives
 - Focus on action
 - Problem solving skills at school age
 - Gets along with others
 - Interpersonally engaging, “likable”
 - Sense of humor
 - Empathy
 - Perceived competencies
 - Good reader
 - Internal locus of control as a teenager
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Reinforcement

- Humans engage in behaviors that are rewarding
- There are natural (food, water, sex, nurturing) rewards as well as artificial rewards, such as drugs
- The nucleus accumbens increases release of dopamine in the reward pathway
- All behaviors that are maintained receive reinforcement somewhere in the brain

Designing a Successful Intervention

- Focus on action
- Make it valued by the amygdala
- Establish a visual cue
- Maintain predictable and persistent practice
- Recognize when it is successfully achieved

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