

Caravan Passageways and the Creation of Trauma Resilience: Applications to Schools and Youth



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In *U.S. News & World Report's* 2014-2017 **America's Best Hospital's** issue Rush ranked among the top 50 U.S. hospitals in nine of 16 categories making it one of the leading academic medical centers in the nation. Rush University is a top ranked medical, nursing, and graduate college of health sciences.



I have no commercial relationship to disclose. I favor studies that support my ideas which is a major conflict



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BASIC TENET OF CONSERVATION OF RESOURCES (COR) THEORY

- *Individuals strive to obtain, retain, foster, and protect that which they value.*
- Therefore people are directed to cultivate resources even when stress is not occurring.
- When threat of resource loss or loss occurs people mobilize resources to offset, limit, or reverse impending or actualized loss.
- Intervention must therefore aid resource cultivation and protection.





Because resource loss meant threat to survival for evolutionary history and due to social conflict and issues of territoriality we are tuned to be in a defensive mode regarding resource protection and fear of loss.

Negative Information Weighs More Heavily on the Brain

- Negative information influences evaluations more than comparable positive information
- Question: How immediately does loss messaging dominate in our brain's recognition of the environment?
- Participants shown positive (people enjoying roller coaster, red Ferrari) and negative (mutilated face, handgun) stimuli
- Measured EEG data in frontal, central and parietal scalp areas

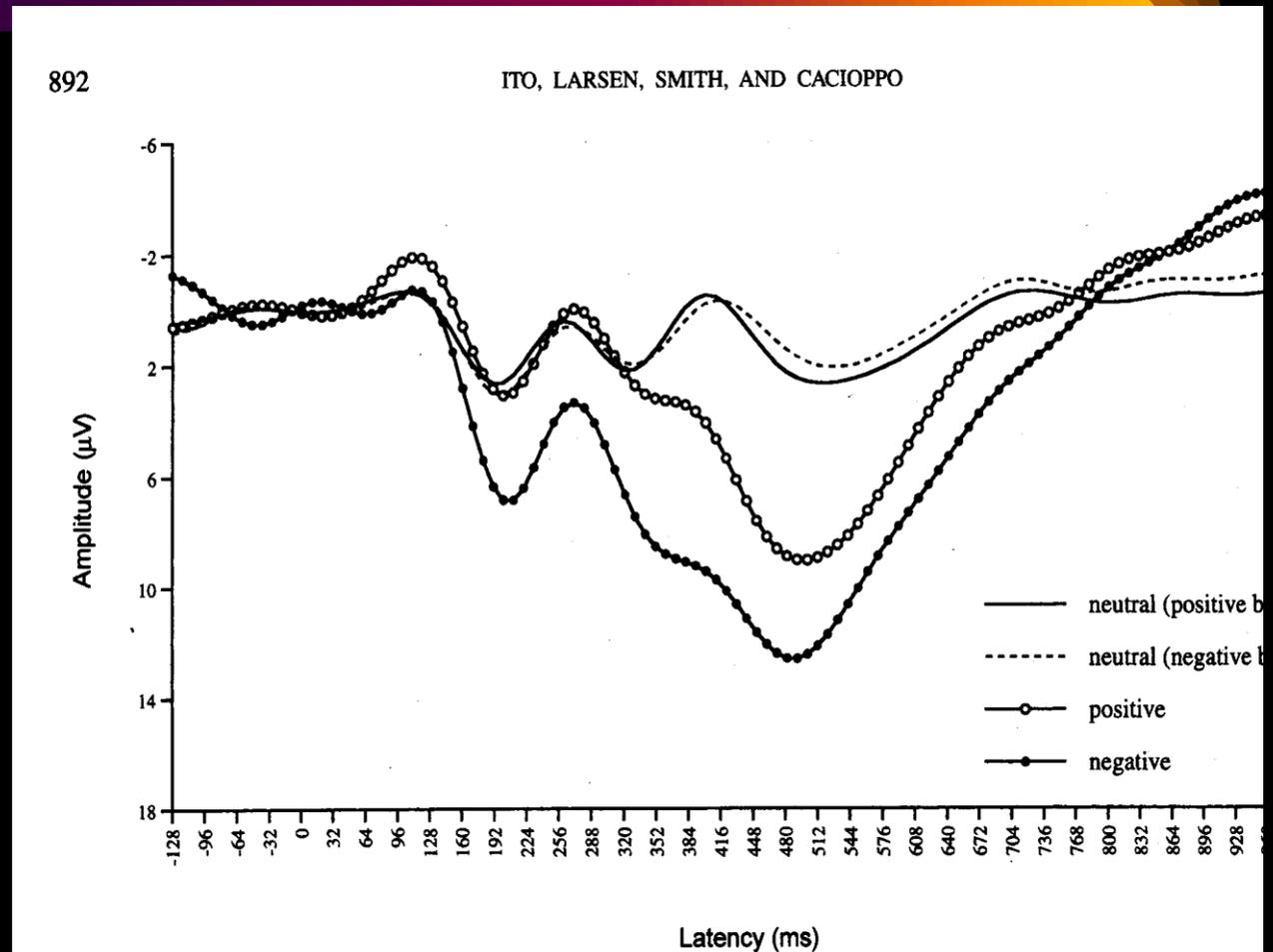
Negative Information Weighs More Heavily on Brain

Ito et al., 1998

Larger amplitude late positive brain potential during evaluative categorization of:

...Positive or negative stimuli compared to neutral

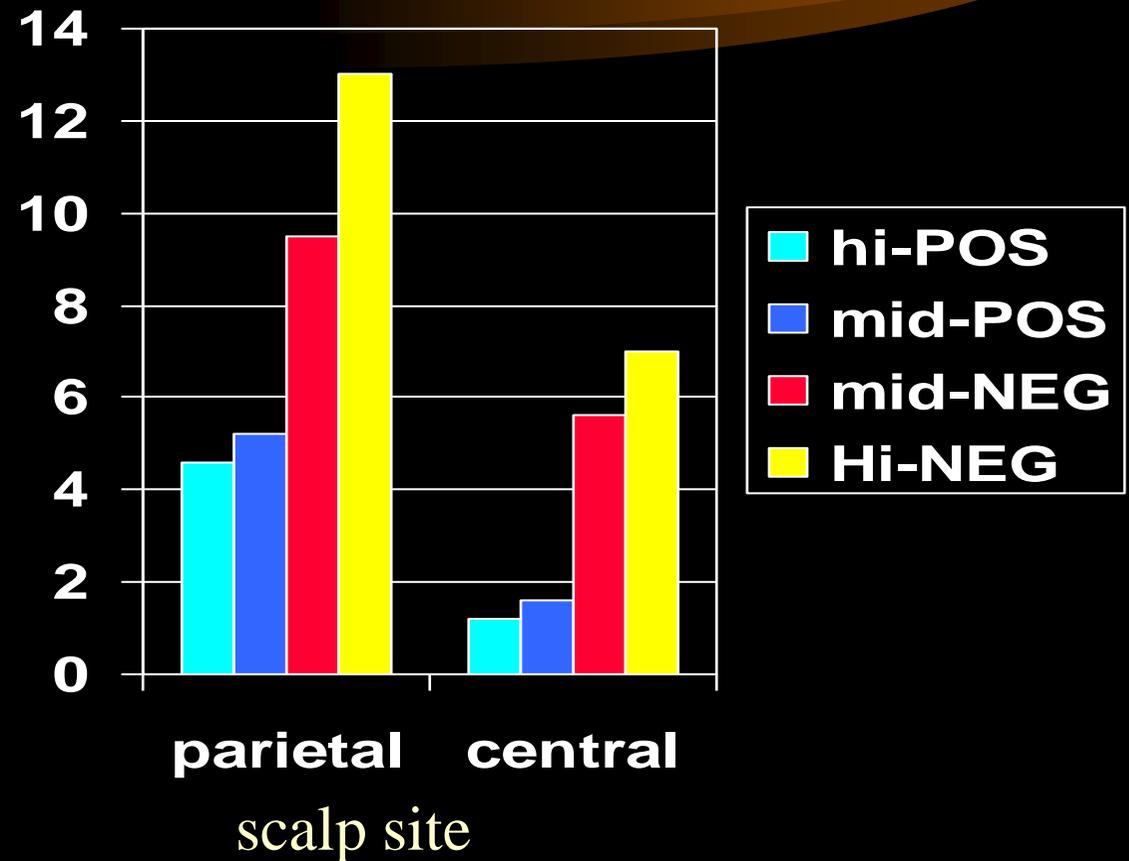
...Negative stimuli compared with equally probable, extreme, & arousing positive stimuli



People Elicit Late, Positive Brain Potentials to Stimuli of Negative Traits

- Participants exposed to sequences of positive and negative personality traits, Examples:
- Positive-honest, sincere
Negative-phony, dishonest

LPP Amplitude (mv)



Cacioppo et al., 1994

*We framed our work on resilience, in part, within the context of Conservation of Resources (COR) theory. According to COR theory, Stress occurs in circumstances that represent a threat of loss or actual loss of the personal, social, material or energy resources required, or the end points that are necessary, to sustain the **individual-nested in family-nested in tribe***



Resources are defined as...

...those objects, conditions, personal characteristics, or energies that we centrally value or that allow us to obtain, retain, foster and protect that which we value.

These resources are socially interconnected and even individual resources (e.g., self-esteem) are linked to social conditions—For example:

Children's self-esteem is a product of their ongoing interactive experiences in schools, at home and in their peer world.

Teachers' sense of efficacy is likewise created and sustained through social and organizational structures.

Life events are too static as units--events must be broken down into resources gained and lost.

School failure or a school shooting are not an "event," they are tragic operas with many players and parts that evolve over time and have long sequelae.

Reality of Resources

Resources are of course perceived,
but...

- perceptions tend to be reality-based
- appraisals are generally products of real occurrences not mere social constructions
- social constructions that exist are shared.
- *Hence, intervention must aid people's re-creation of safety and attachment, objectively first, and perceptually second.*



Principles of COR Theory

1. Resource loss is disproportionately more salient than resource gain.

Fundamental losses in children's lives reverberate throughout their lives, from cradle to the grave

2. People must invest resources to protect against resource loss, recover from losses, and gain resources.

Children and youth are not equipped to institute gain cycles without supportive structures

3. Resource gain becomes important in the context of resource loss.

Exaggerated Sense of Loss, Hyped for political purposes, is fundamental to right wing populist movements across Europe and the U.S. and to radicalization of Muslim youth



These movements are attracting youth from a young age. Youth who are marginalized and poor are at most risk

Why loss is overweighted...

IMMUNE NEGLECT may be one reason (Gilbert, 1998)

- **Despite the fact that people tend to successfully defend against negative life events...**
- *...they consistently ignore their psychological immune system and overpredict negative consequences*
- *In other words, we do not learn to be less sensitive to loss or threat from our successes. Our biology primes us to be loss vigilant*



Immune neglect is thought to activate high level responding in the face of adversity

Corollaries of COR Theory

Corollary 1

- **Those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain.**
- **Those with fewer resources are more vulnerable to resource loss and less capable of achieving resource gain.**
- **Hence, those who lack resources are less likely to have resources to invest to offset initial resource loss.**

Resource Caravans and Vulnerability Webs

- Personal, social and material resources develop together and aggregate
- They are fostered by schools and communities in the service of youth and families
- Self-esteem, self-efficacy, resilience, social support, material resources, and optimism are co-travelers—and they are more likely to co-occur in good schools based in good neighborhoods (Michael Rutter)
- This means that intervention must be multi-level and ecological

Vulnerability Webs

- Again, vulnerability is depicted as an individual difference factor, but...
- Risk and vulnerability factors exist in complex, stubborn, interwoven webs (Layne et al)
- Poverty, violence, family dislocation, food insecurity, social undermining, poor schools, pessimism, low self-esteem, and school failure aggregate and cannot be individually dislodged or changed (Michael Rutter)
- So, to combat vulnerability webs we must intervene at multiple levels and understand that these webs are firmly embedded

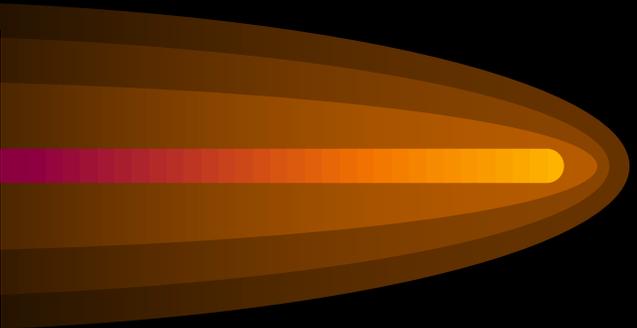
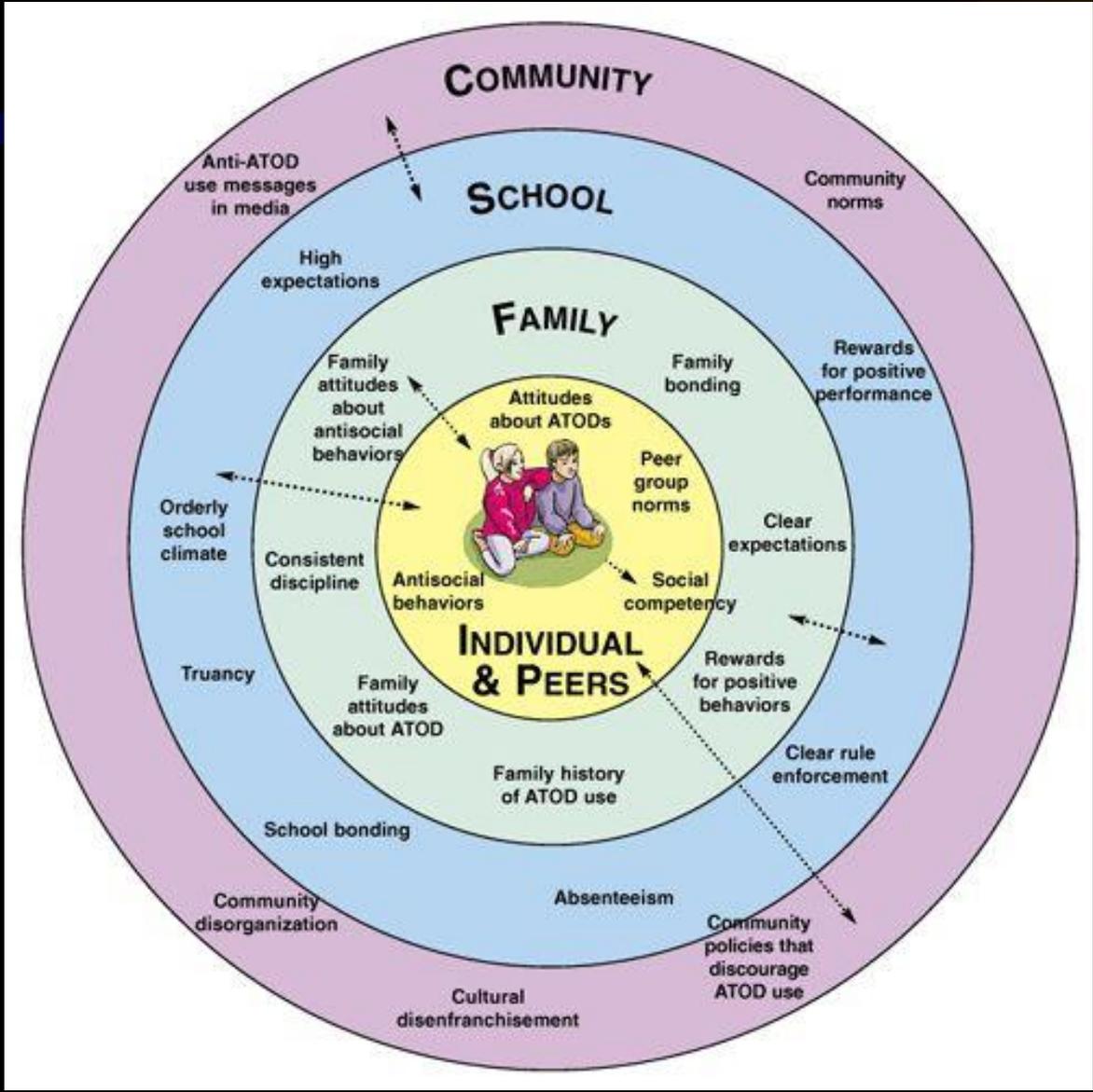


Resource Caravan Passageways

- Resource caravan passageways are the environmental conditions that support, foster, enrich and protect the resources of individuals, families, and organizations, or that detract, undermine, obstruct, or impoverish people's resource reservoirs.
- We see resilience on the individual level, but it is mostly a product of the life space the child or adult or community is living in.
- We mistake resilience to be an individual attribute when what are really seeing is the result of being born with a fully stocked "backpack," and living in a safe, supportive corridor of the world and each of our communities
- Schools and local communities must create resource enriching environments, and must intervene in the social circumstances that undermine personal, social and material resource accumulation, and that contribute to resource loss, in particular where environments are trauma toxic-(for students & teachers)

These views are consistent with Uri Bronfenbrenner's Bioecological Model

“Development, it turns out, occurs through this process of progressively more complex exchange between a child and somebody else—especially somebody else who is crazy about that child”

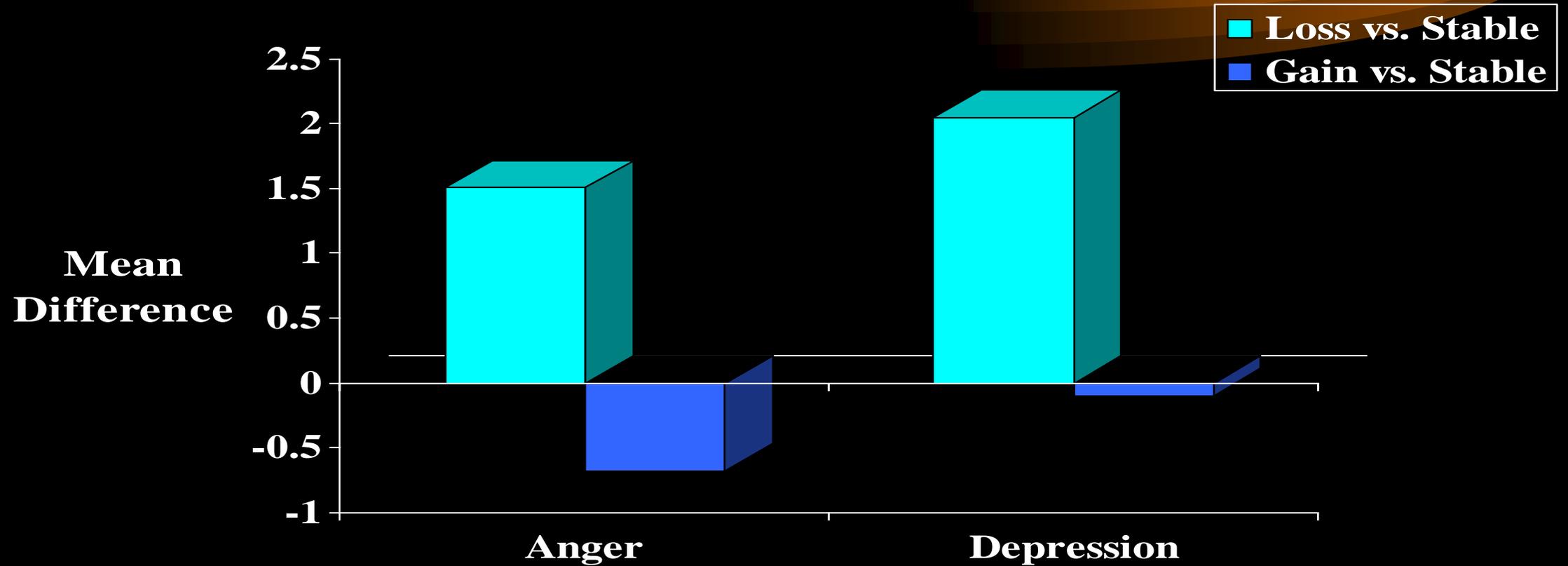


Turning to Resilience

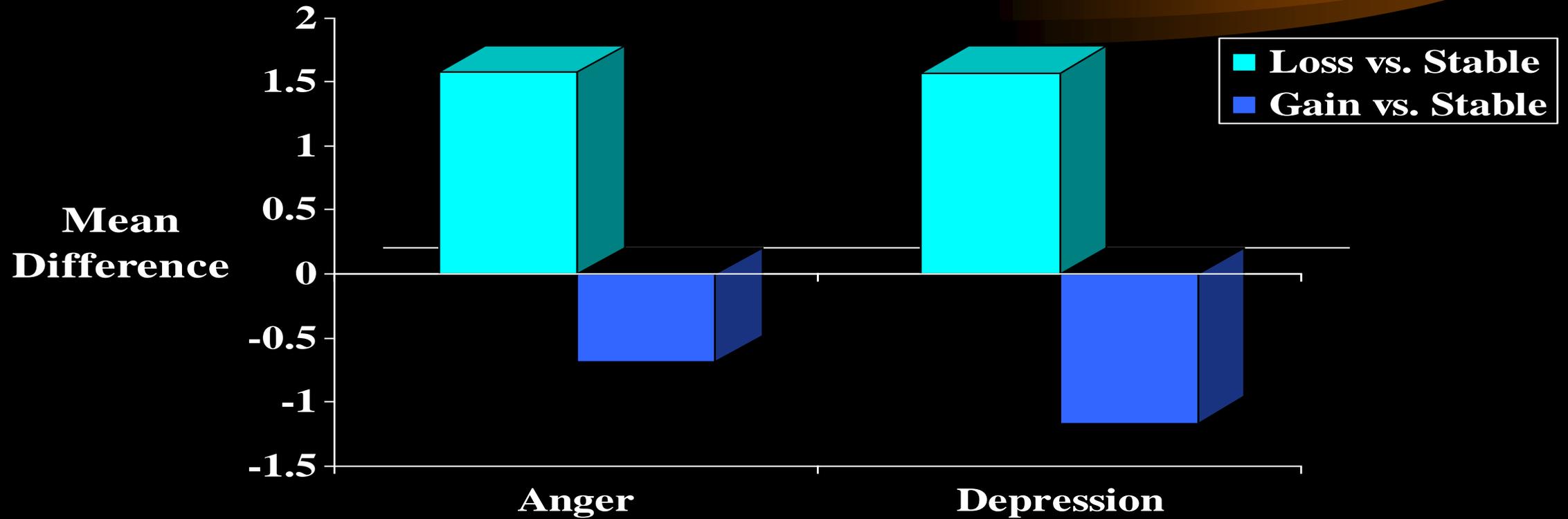
- Resource loss will undermine resilience if it occurs before resilience is built up
- Resilience requires supportive environments and personal resources
- Gain cycles are fragile compared to loss cycles, which are robust. So, gain cycles are easily interrupted. This means that resilience building takes time and must be nurtured in its formative stages.



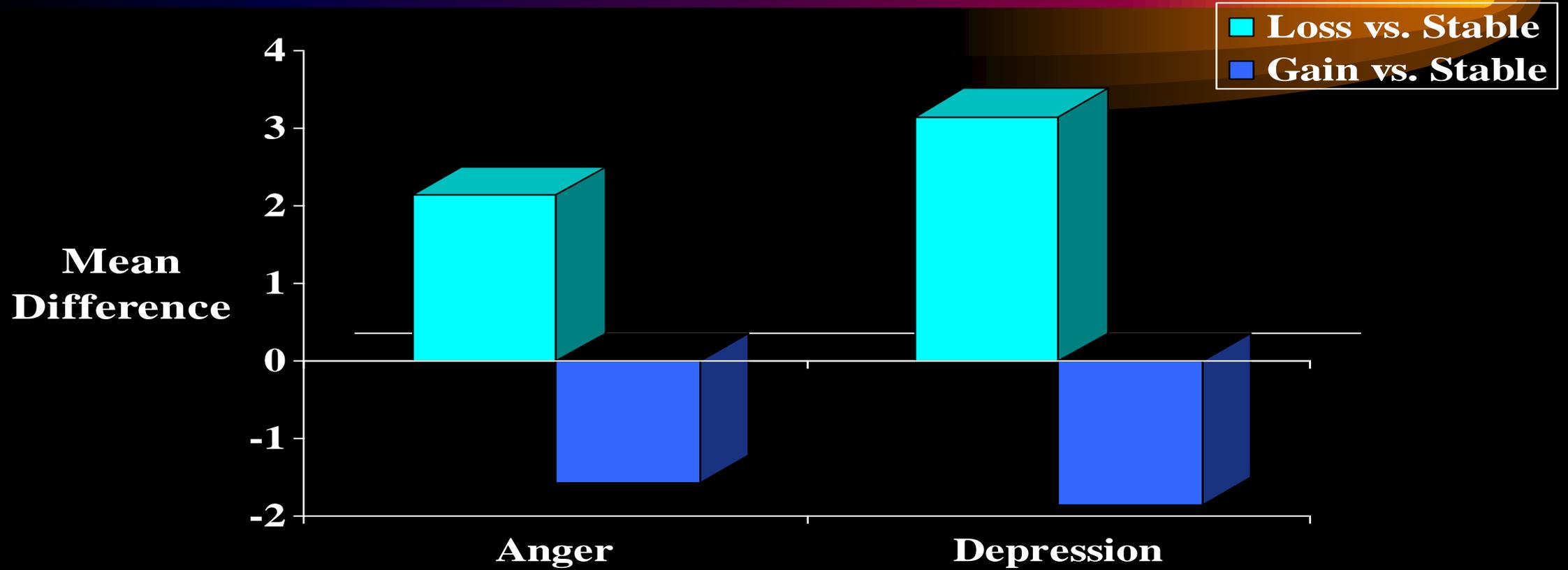
Impact of Loss vs. Gain in Material Loss among Inner-City Women
Large-scale, prospective study of inner-city women examining the impact of resource loss and gain on psychological distress



Impact of Loss vs. Gain in Social Support among Inner-City Women



Impact of Loss vs. Gain in Mastery among Inner-City Women



Conservation of Resources (COR) Theory

Corollary 2: Loss Cycles

- **Resource loss in personal, social, and material domains is the primary source of stress and its consequences**
- **Because we rely on resources to offset losses AND because stress results from loss, at each iteration of the stress cycle there are fewer resources to rally in defense.**
- *Hence, initial loss begets future loss, making those with depleted resource reservoirs particularly vulnerable. This is a lifetime cycle as well as being represented by shorter span cycles.*
- *In these next studies we examine this for women abused sexually and physically across the lifespan.*
- *Although we do not explore trauma in men's lives here, it is also a critical aspect of health disparities.*

Signature of Abuse

- The main theoretical question is how lifetime trauma exposures translates to resource deterioration, psychological distress, and cardiovascular disease in adulthood
- There is still little research on how those abused as children cope with new stressors in adulthood and how lifetime abuse translates to PTSD, that is the mechanisms of this transfer across time and circumstances
- This has critical clinical applications because treatment must halt these loss cycles, not just treat symptoms...
- And traumatic stress translates to immune dysregulation and inflammatory processes



The Signature of Abuse Hypothesis: Interpersonal Trauma and Loss Among Women Seeking Treatment for Substance Use

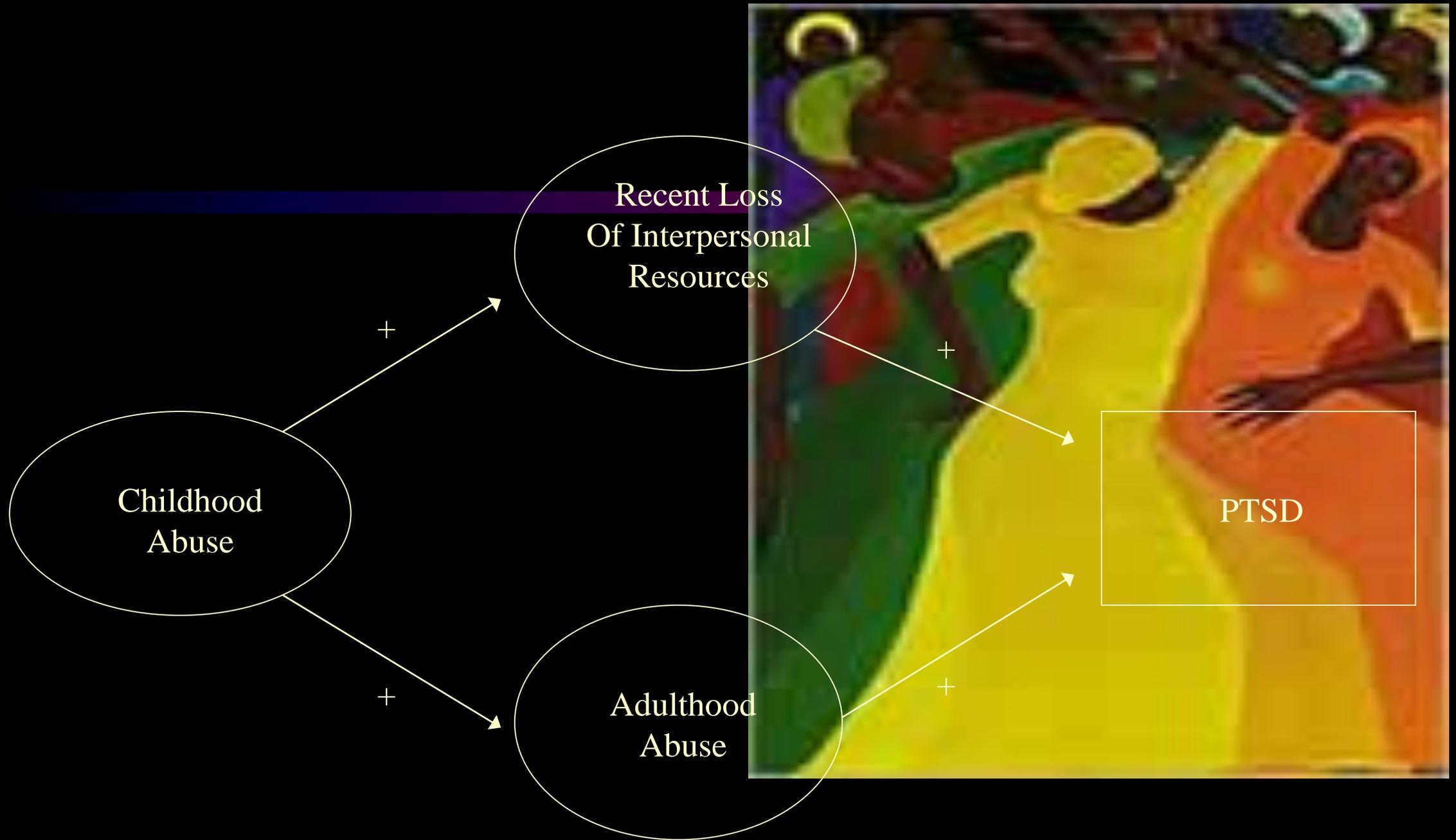
Schumm, Keogh & Hobfoll

- Those with depleted resource reservoirs are more vulnerable to adult revictimization
- Those who lack resources will be more vulnerable to drug abuse which make them increasingly vulnerable to revictimization



Abuse and Assault of Women Over the Lifespan: The Cumulative Impact of Multiple Traumas and Social Support

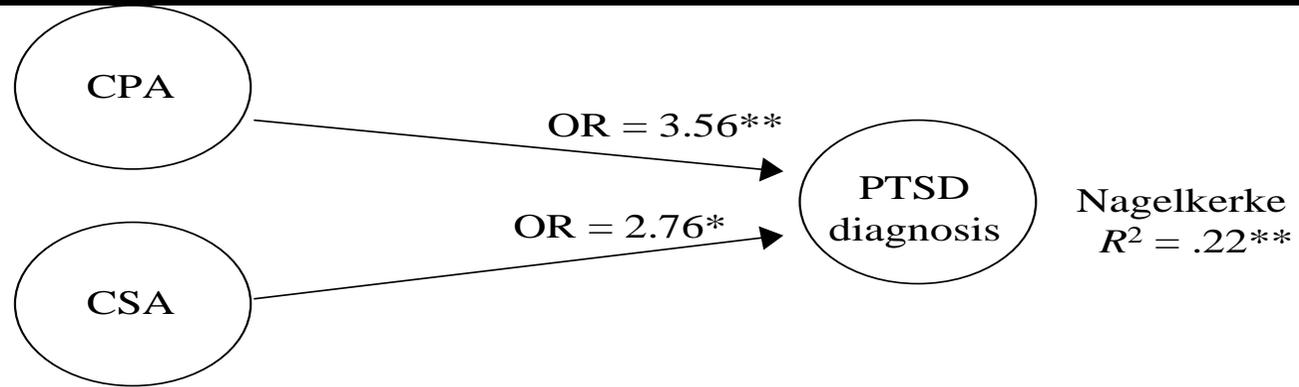
- Estimates of about 20-30% of girls are sexually abused as children. Much more prevalent in inner-city.
- In the U.S. 10-25% of women are raped as adults, the higher rates among poor inner-city women. Rape rates among inner-city Black women in Chicago are 9-fold higher than for White Women
- We hypothesized that multiple traumas of child sexual abuse and rape will greatly affect women
- At the same time, we hypothesized that social support would have major impact as a resiliency resource



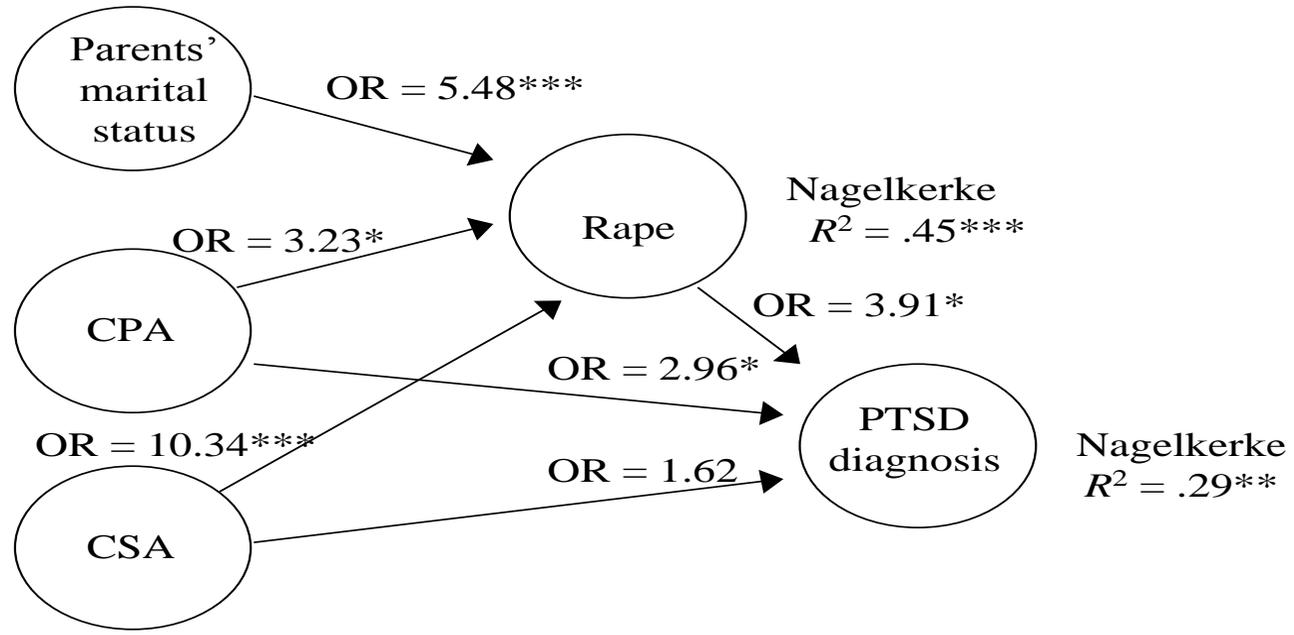
Method

- *Participants* (N = 105) – female clients of inner-city community drug & alcohol treatment agency
- *Measures*
 - **Demographic information**
 - **Childhood sexual & physical abuse**
 - **Sexual assault in adulthood**
 - **Recent interpersonal resource loss**
 - **Abuse-related PTSD**

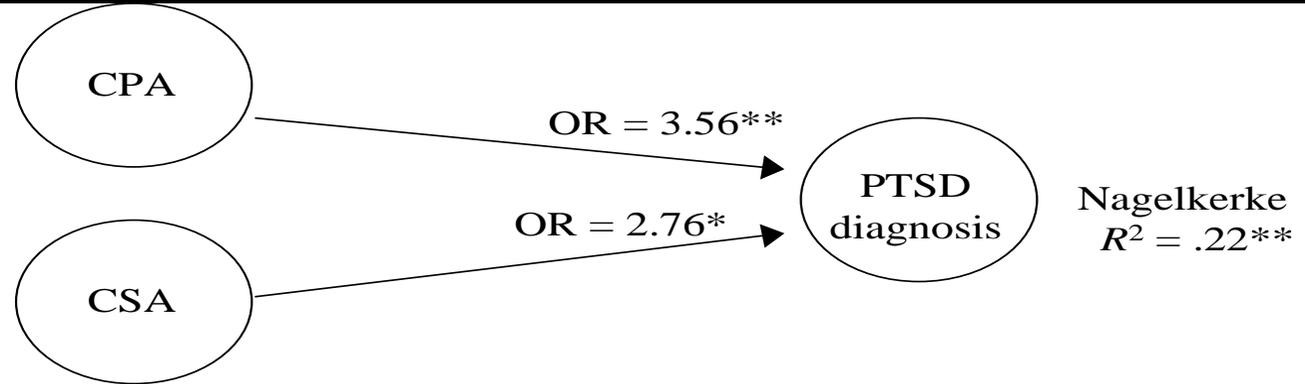
Model E



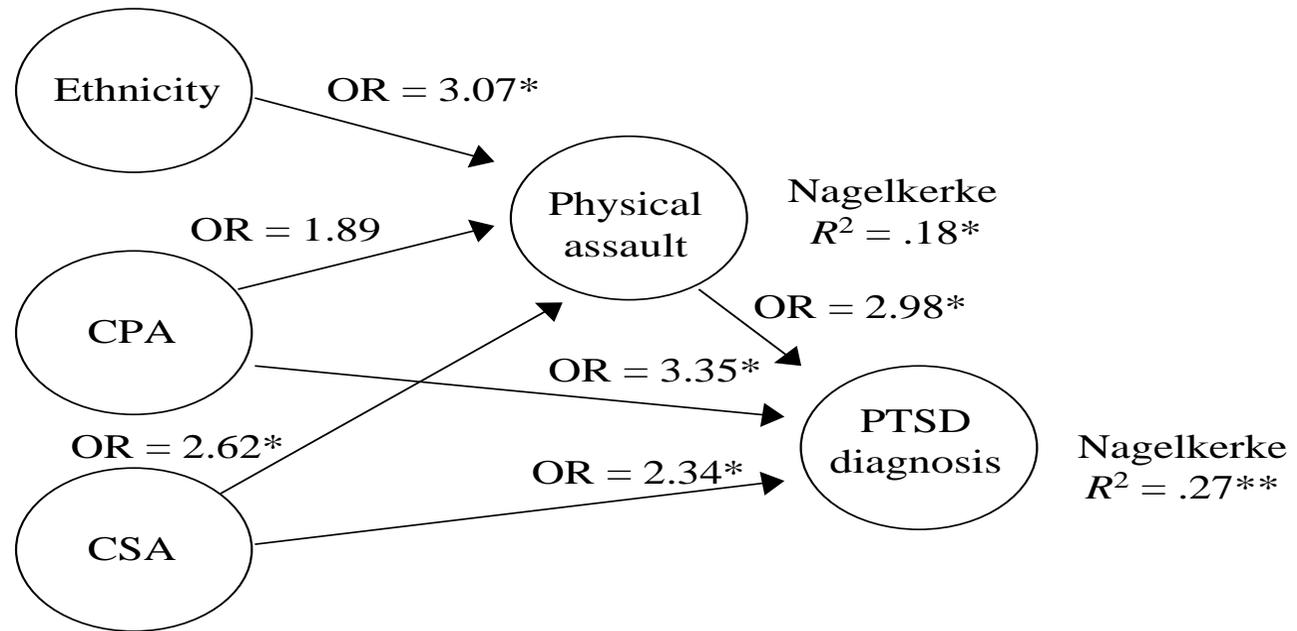
Model F

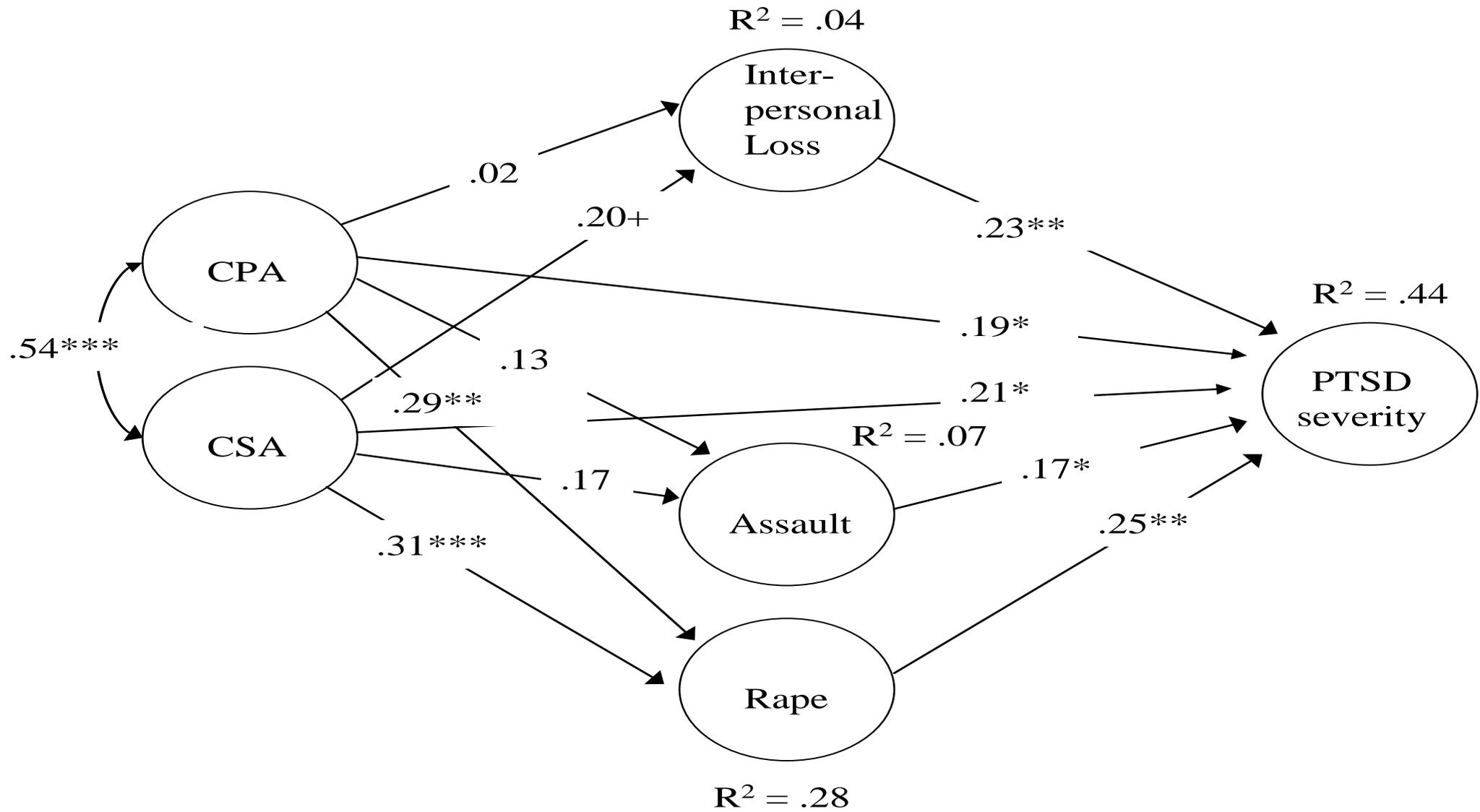


Model E



Model G





Method



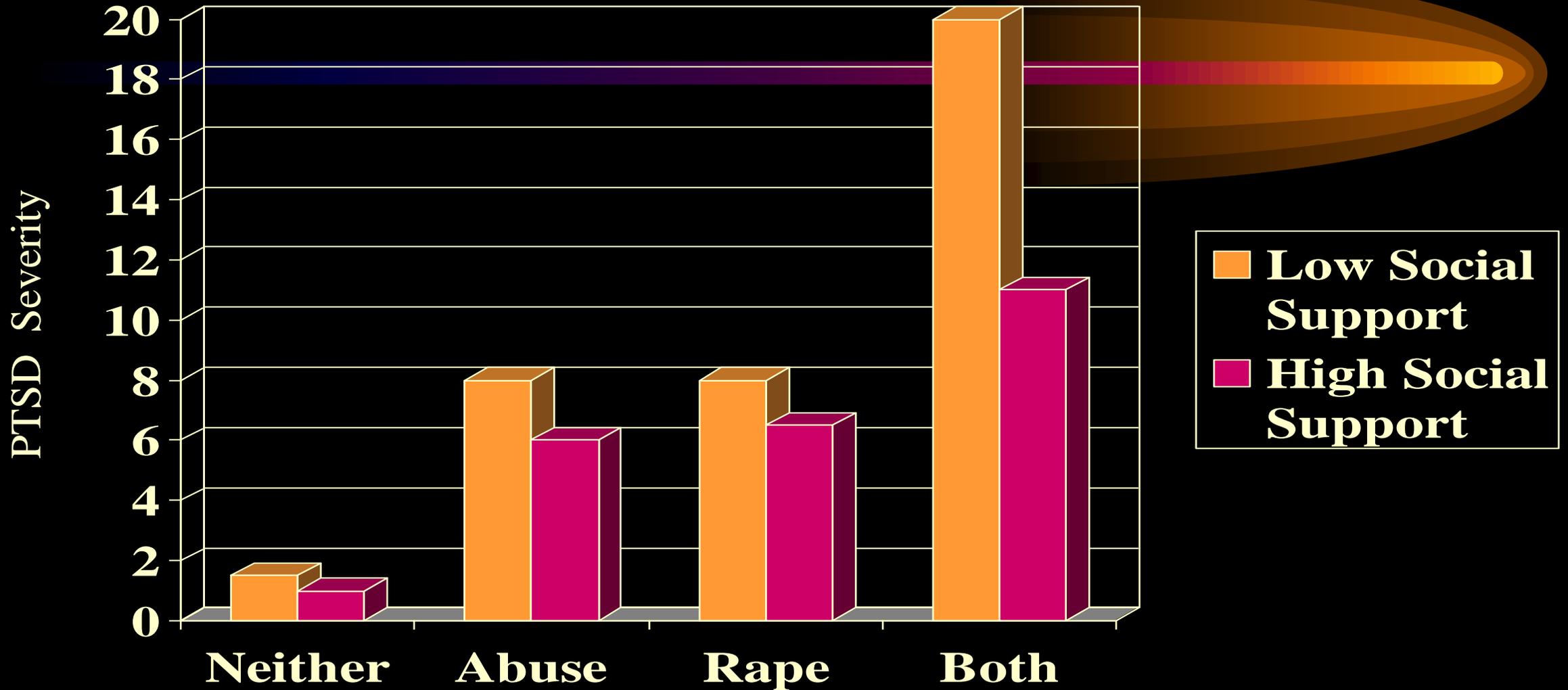
- Sample of 777 women
 - Recruited over a 3-year period in Midwestern U.S. City
 - Age=21.7 years (sd=3.8)
 - Most living below poverty line
 - Single without permanent partner
- Measures included:
 - social support
 - trauma history
 - PTSD (Pss-sr)
 - Depression (CES-D)

Results

- 65% reported some kind of sexual or physical trauma
- 58% met clinical criteria for depression
- 22% met clinical criteria for PTSD



PTSD Severity Among Women Abused as Children and Raped as Adults

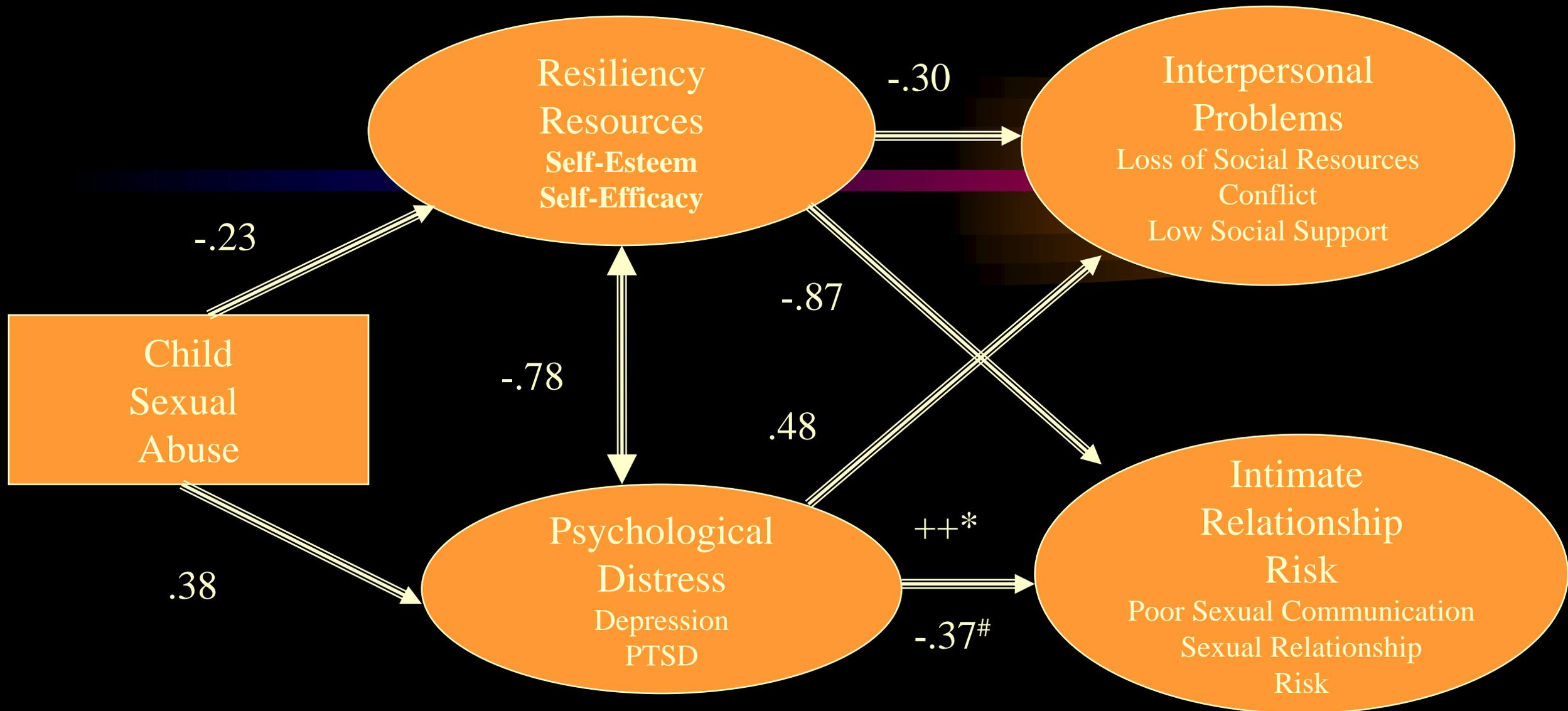




Lifetime Trauma, Resiliency, and Interpersonal Difficulty

Lamoureaux & Hobfoll

- Explored the dual route of lifetime abuse on interpersonal difficulties occurring via eroding of resiliency resources and increased psychological distress
- Examines how childhood trauma has a cascading impact on resources in adult women's lives, that in turn further erodes their resources by negatively impacting their interpersonal relationships
- Longitudinal study allows for a good test of the model, but still cannot be used to assign causality as these processes are likely transactional
- 504 Inner-city women (69% African American)
- Average age 21 years
- Single women with either no partner or partner believed to be acting sexually risky
- Longitudinal study of interviewed women over 6 months



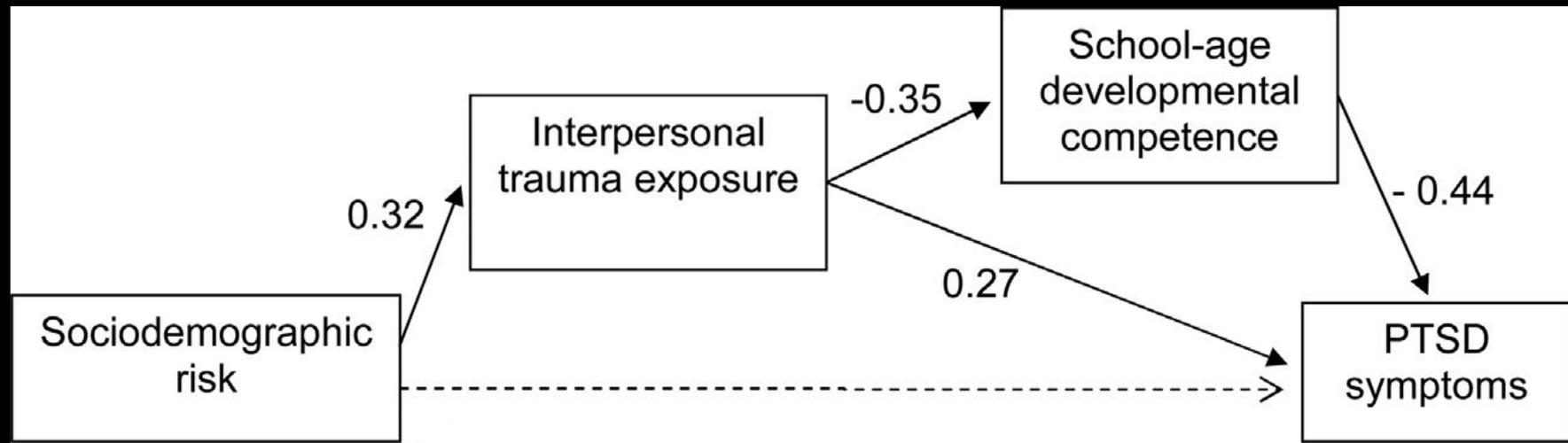
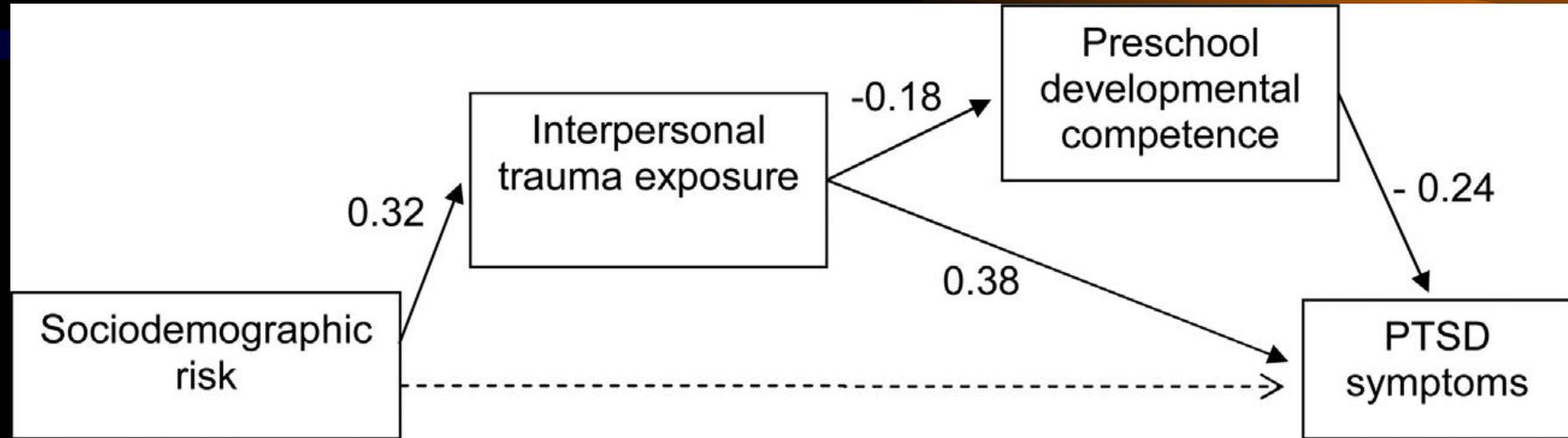
All paths are significant at $p < 0.05$. $\chi^2 (29, N = 485) = 73.21, p < .001$; CFI = .96, RMSEA = .06, Standardized RMR = .04. Note: # Psychological distress results in decreased relationship risk, but this is a residual effect, opposite of the zero-order findings.

Leading to Intervention

- **Both Child Abuse and Rape have major impact on Depression and PTSD**
- **When both occur, the impact is devastating, increasing women's risk of PTSD 17-fold**
- **Child abuse continues to impact adult women by deteriorating resources and making them vulnerable to new stressors and adult abuse**
- **The level of impact is much greater than the story told by correlations**
- **The part that makes the story more contextual and explains a great deal of additional variance is the impact of child abuse and adult violence on deterioration of resiliency resources**
- **We need to study these multiple pathways more. The resiliency pathway is the more important as it is the link to treatment and recovery.**
- **RESOURCES EXIST OR ARE EXTINGUISHED IN CARAVANS, NOT SINGULARLY**
- **We are more directly examining relationship of PTSD to immune dysregulation and inflammatory environment**

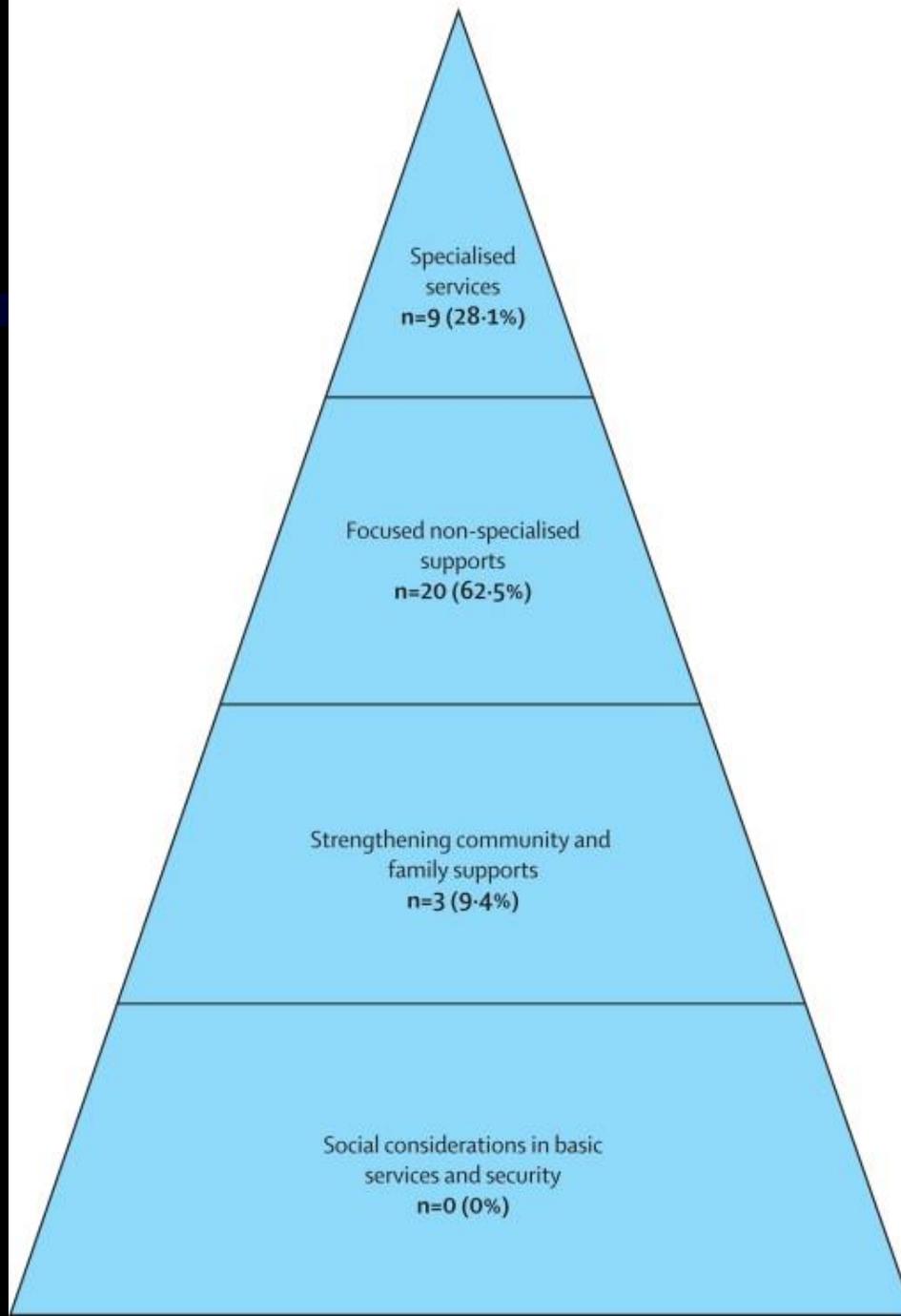


Looking at an earlier developmental time frame: Sociodemographic Risk, Developmental Competence and PTSD in Children Exposed to Interpersonal Trauma, Enlow et al., 2013, JTS



*Mental Health
in
Humanitarian
Settings: Tol et
al., 2011 Lancet*

*A good model
for school
based
intervention*



Specialised services

Eg, mental health care by mental health specialists (psychiatric nurses, psychologists, psychiatrists, etc)

Children and adolescents:

- Group IPT and KIDNET (one RCT)⁴⁷
- KIDNET and meditation-relaxation (two RCTs)^{48,49}

Adults:

- Control-focused behavioural treatment (two RCTs)⁵⁰⁻⁵²
- NET, psychoeducation, and counselling (four RCTs; Frank Neuner, Bielefeld University, personal communication)⁵³⁻⁵⁵

Focused non-specialised supports

Eg, basic mental health care by primary health-care doctors, basic emotional support by community workers.

Children and adolescents:

- Basic psychosocial support or medical care (one RCT)⁵⁶
- Classroom-based interventions (four RCTs, one CCT)⁵⁷⁻⁶¹
- ERASE Stress Sri Lanka (one RCT)⁶²
- Group CBT (one CCT)⁶³
- Group crisis intervention (one CCT)⁶⁴
- Group IPT and creative play (one RCT)⁶⁵
- Reconciliation in education (one CCT)⁶⁶
- Psychodynamic and contextual programme (one RCT)⁶⁷
- Trauma or grief component therapy (one RCT, one CCT)^{68,69}

Adults:

- Basic psychosocial support or medical care (one RCT)⁵⁶
- Individual counselling (one RCT; Frank Neuner, Bielefeld University, personal communication)⁵⁹
- Multidisciplinary rehabilitation torture survivors (one CCT)⁶¹
- Problem-solving group counselling (one CCT)⁶⁰
- Testimony therapy (one RCT)⁶⁵
- Trauma healing and reconciliation (one RCT, one CCT)^{52,58}

Strengthening community and family supports

Eg, activating social networks, communal traditional supports, supportive child-friendly spaces

Children and adolescents:

- Creative play (one RCT)⁶⁵
- Recreational, cultural, and other non-formal activities (one RCT, one CCT)^{70,71}

Adults:

- Befriending for bereaved (one CCT)⁷²

*An exceptional ecological school-based programs: The German
NETWASS Program*

Leuschner et al., 2017, Child Development

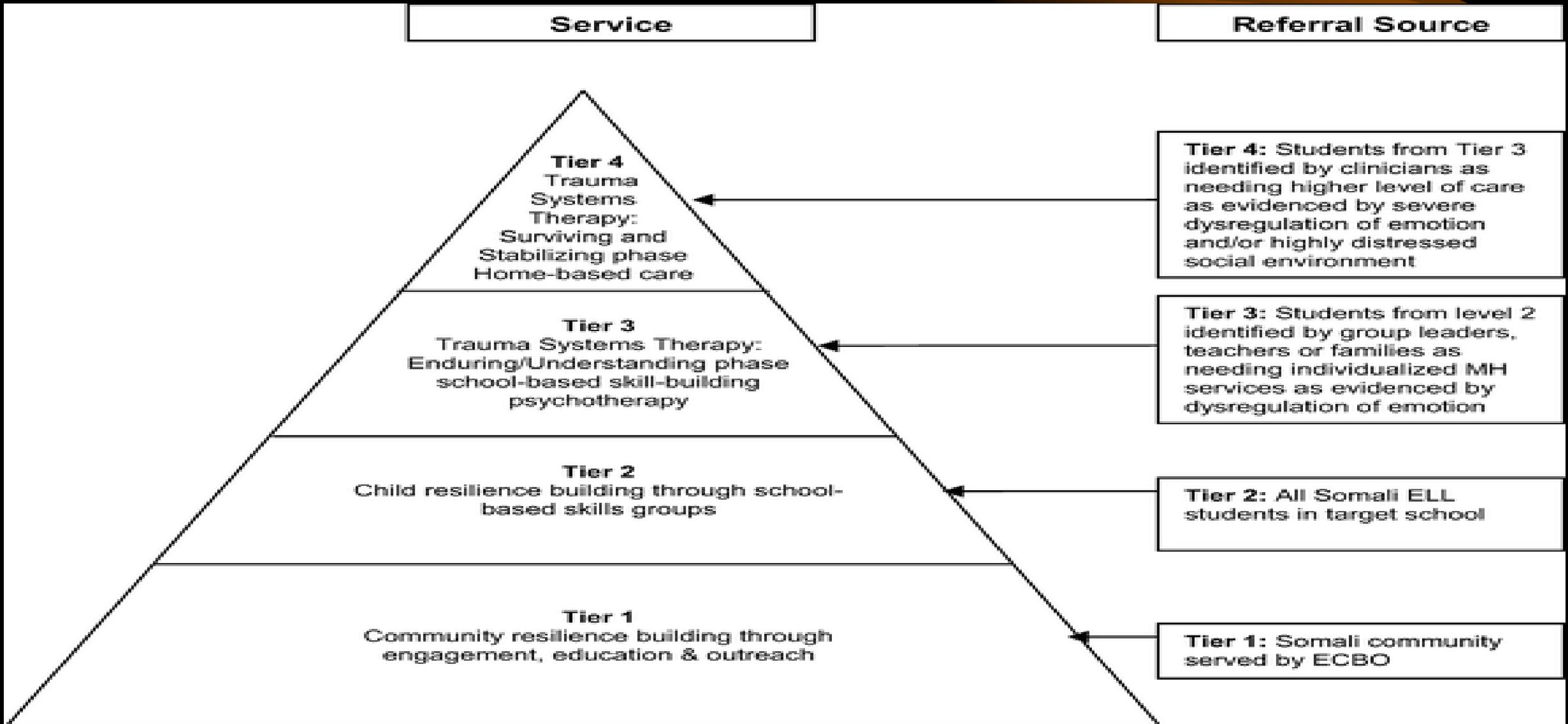
- School-based prevention program (Network Against School Shootings)
- Training teachers in recognizing warning signs of targeted school violence
- 98 schools with 3,473 school staff participants
- Prospective design
- Found increased teacher identification expertise
- Increased downstream effects on teacher student interaction and feelings of safety



Multi-Tier Mental Health Program for Refugee Youth—a model for school and community intervention with youth

Ellis et al., JCCP 2013

Figure 1. The pyramid approach to engaging and treating the Somali refugee population. ELL = English language learner; ECBO = Ethnic Comm



Lessons Learned

- **People (students, teachers, administrators) are nested in ecological systems**
- Risk, disease and resilience co-occur & brain and biology are secondary
- Neither “dis-ease” nor resilience exist outside of culture and context
- Maintaining and sustaining personal, social and economic resources is fundamental to well-being across the lifespan-schools can foster resources or undermine them
- Much of resilience is given at birth as a product of social station, public resources, economics, and place...but we can create resilient passageways
- Most of us who call ourselves resilient were born lucky, and maybe had some resilient parents or grandparents that did some pretty incredible things to immigrate or survive WWII. Refugees are showing us what resilience is
- We may have untested resilience, but so far we are just at the dance.....

