CONSEQUENCES OF CHILDHOOD MALTREATMENT: INTEGRATING BEHAVIORAL, BRAIN, AND CLINICAL RESEARCH

KRISTEN MACKIEWICZ SEGHETE, PHD

Assistant Professor
Department of Psychiatry
OHSU
NO FINANCIAL DISCLOSURES:

THE PLANNING COMMITTEE:
GEORGE KEEPERS, BILL WILSON, MICAELA SANDOVAL,
SEAN STANLEY, AND KEVIN HOWDEN HAVE NO FINANCIAL
CONFLICTS TO DISCLOSE.

THE PRESENTER: DR. KRISTEN MACKIEWICZ SEGHETE HAS
NO FINANCIAL CONFLICTS TO DISCLOSE.
OBJECTIVES

1) Define and identify the different major classes of childhood maltreatment.

2) Identify behavioral and cognitive difficulties across the lifespan associated with a history of childhood maltreatment.

3) Describe alterations to neurobiology across the lifespan in individuals with a history of childhood maltreatment.

4) Describe how alterations to neurobiology contributes to behavioral and clinical presentation of individuals with a history of childhood maltreatment.
WHAT IS MALTREATMENT?

“Child abuse and neglect is any act or series of acts of commission or omission by a parent or other caregiver (e.g., clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child.”

Centers for Disease Control (CDC)

“Child maltreatment, sometimes referred to as child abuse and neglect, includes all forms of physical and emotional ill-treatment, sexual abuse, neglect, and exploitation that results in actual or potential harm to the child’s health, development, or dignity.”

World Health Organization (WHO)

“Maltreatment is characterized by sustained or repeated exposure to events that involve a betrayal of trust.”

Teicher & Samson, 2013
TYPES OF MALTREATMENT

Active maltreatment (acts of commission):
- Sexual abuse
- Physical abuse
- Emotional abuse
  - Includes witnessing interpersonal violence (IPV)

Passive maltreatment (acts of omission):
- Emotional neglect
- Physical neglect
Exhibit 3-1 The victimization rates for younger boys are consistently higher than girls of the same age, while the victimization rates for older girls are consistently higher than boys of the same age.
DEVELOPMENT

Gogtay et al., PNAS 2004
ADAPTIVE IN THE FACE OF TRAUMA . . .
BUT NOT ONCE THREAT HAS BEEN REMOVED
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health
Functioning
Emotional Processing
Cognitive Processing
Psychiatric Disorders
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health
Functioning
Emotional Processing
Cognitive Processing
Psychiatric Disorders

Greater utilization of services and higher rates of major medical conditions

Greater engagement of emergency services

Increased risk for:
- STIs
- Obesity
- Cardiovascular disease
- Chronic pulmonary disease
- Diabetes
- Cancer
- Fractures
- Autoimmune disorders
- Chronic pain
- Chronic GI problems (e.g., IBS)
- Premature death
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health

Functioning

Emotional Processing

Cognitive Processing

Psychiatric Disorders

Decreased academic achievement

Impaired social relationships

Increased occupational difficulties

Higher rates of re-victimization

Intergenerational transmission of the effects of trauma, including parenting and attachment
Figure 1. Maternal neural response to own infant cry > control sound associated with mothers’ self-report of childhood neglect. Scatterplots depict signal change (compared to resting baseline) associated with own infant cry sound and control sound in areas showing neglect-related differences. Clusters overlaid on MNI-152 1 mm template and met threshold criteria (>615 mm³, p < .005) based on whole-brain false discovery rate of .05.
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health
Hypervigilance to threat
Heightened stress responding in the face of ambiguity or uncertainty
Reduced stress tolerance
Mood lability
Emotion discrimination and recognition (neglect)

Functioning

Emotional Processing

Cognitive Processing

Psychiatric Disorders
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health

Memory impairments

Attentinal difficulties

Functioning

Reduced processing speed

Emotional Processing

Inhibitory difficulties/alterations

Cognitive Processing

Suppressed intellectual or language development (neglect)

Psychiatric Disorders
COGNITIVE CONTROL

**Overriding** prepotent or automatic responding and behaviors

Proactive (sustained) vs reactive (transient)

Abilities that allow an individual to guide behavior

- Towards a goal
- In the face of distracting information
- When the situation is novel
- Towards task relevant processes

Banich, *Current Directions in Psychological Science*, 2009
Threat

Incongruent

Positive

Hybrid Stroop Design

Threat

Incongruent

Positive

Neutral
Threat

Blocked
Activation

Incongruent

Sustained
Cognitive
Control = Proactive

Positive

Event-related
Activation

Transient
Cognitive
Control = Reactive
PROACTIVE CONTROL FOR EMOTIONAL AND NON-EMOTIONAL INFORMATION

Mackiewicz Seghete et al, under review
REACTIVE CONTROL: VALENCE MATTERS

Mackiewicz Seghete et al, under review
AGE OF ONSET

Mackiewicz Seghete et al, under review
IMPACT OF CHILDHOOD MALTREATMENT

Physical Health
Functioning
Emotional Processing
Cognitive Processing
Psychiatric Disorders

PTSD
Anxiety
Depression
Substance Use
Suicidality
Dissociative symptoms
Hallucinations
Impulse control
Aggression
DIFFERENT CLINICAL PROFILES

Greater severity and chronicity of symptoms, coupled with poorer prognosis and poorer response to treatment

- Depression, PTSD, Anxiety Disorders, and SUDs

Different profiles within disorders

- Depression = greater anhedonia, vegetative symptoms, and suicide attempts
- PTSD = higher rates of PTSD post adult trauma, more dissociative symptoms
- SUDs = early age on initiation, higher rates of injection drug use, increased risk of drug dependence

Treatment responsiveness

- Mindfulness vs CBT

Williams et al., Journal of Consulting and Clinical Psychology, 2014
Decreased connectivity between ventral medial regions and amygdala present during adolescence but not childhood in youth with a history of early life stress.

Lower amygdala and medial frontal coupling mediates relationship between early life stress and anxiety in females.

But, opposite pattern observed for depressive symptoms...greater coupling mediates relationship between early life stress and depression in females.
NEED TO TAKE A LIFESPAN APPROACH
AND

TRAUMA MAY IMPACT NEURODEVELOPMENT

AND

NEURODEVELOPMENT MAY IMPACT THE RESPONSE TO TRAUMA
REVIEWS


QUESTIONS?

Please Limit Questions or comments for the speaker to 30 seconds or less so everyone can have an opportunity