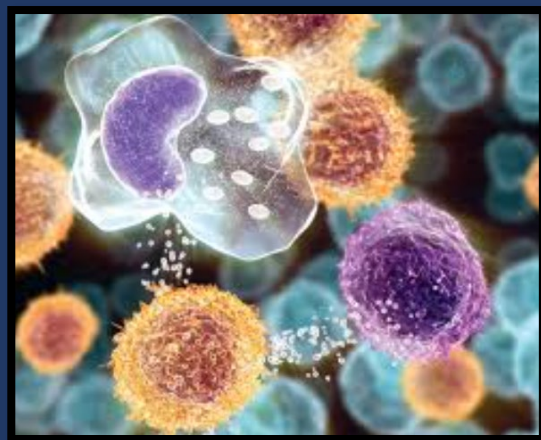
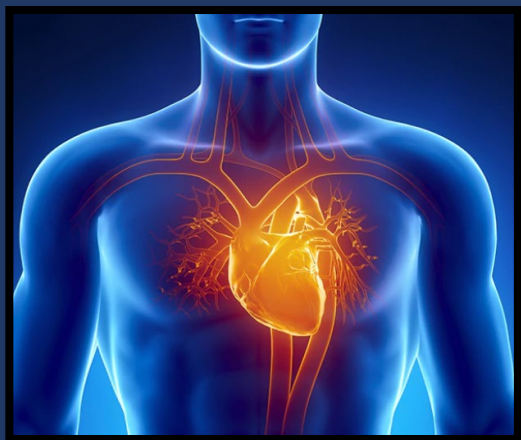




National Heart, Lung,
and Blood Institute

R01 HL 127260-05



Mechanisms Underlying Cardiovascular Disease Risk Among the Spousally Bereaved

Angie LeRoy, PhD

Post-doctoral Fellow | Rice University

The loss of a spouse can be deadly



40% - 100% EXCESS MORTALITY



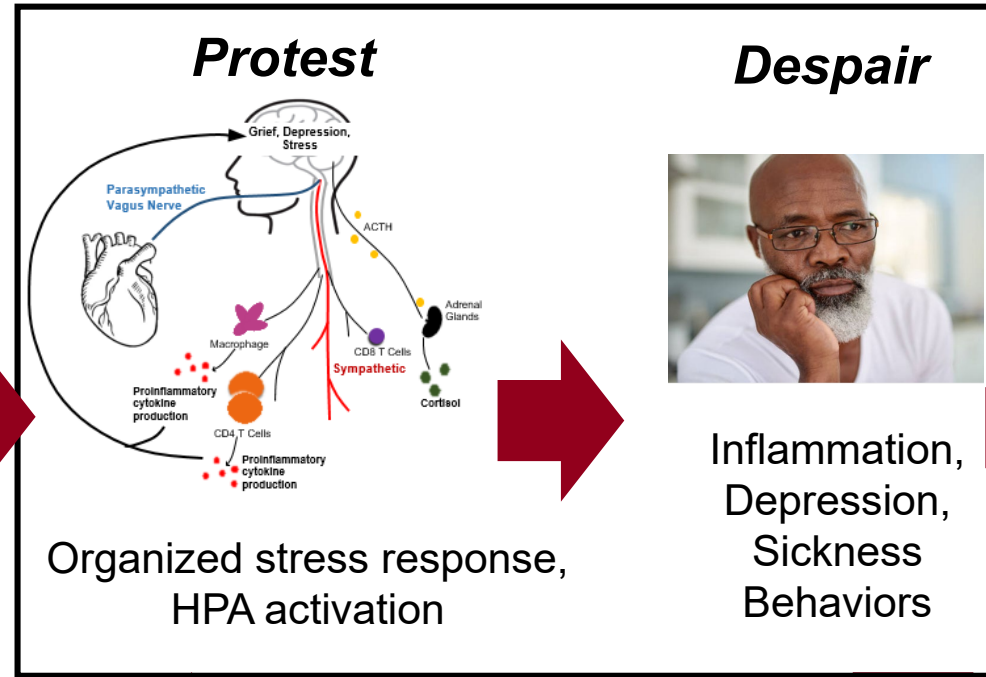
Partner as Primary Attachment Figure



Loss of Partner



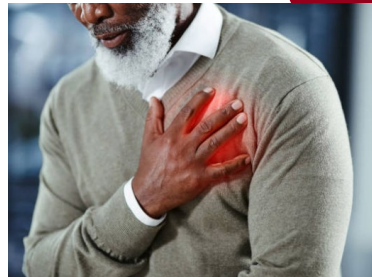
Dysregulation



Reorganization



Risk



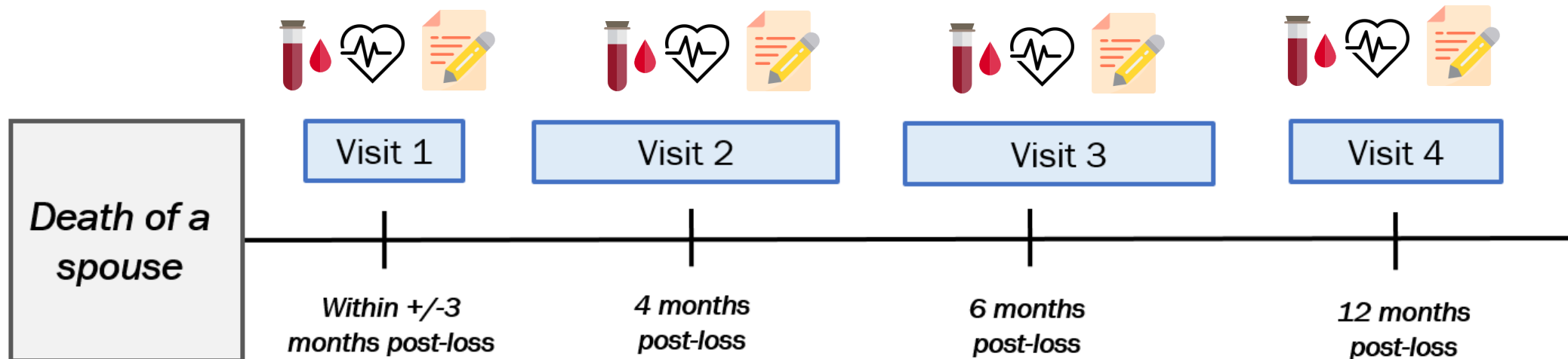
Project Heart



National Heart, Lung,
and Blood Institute

R01 HL 127260-05

- Longitudinal Observational Study
- Participants
 - 160 Bereaved
 - 160 Controls
 - Matched on Sex, Age, BMI



Confounds

Exclusionary Criteria

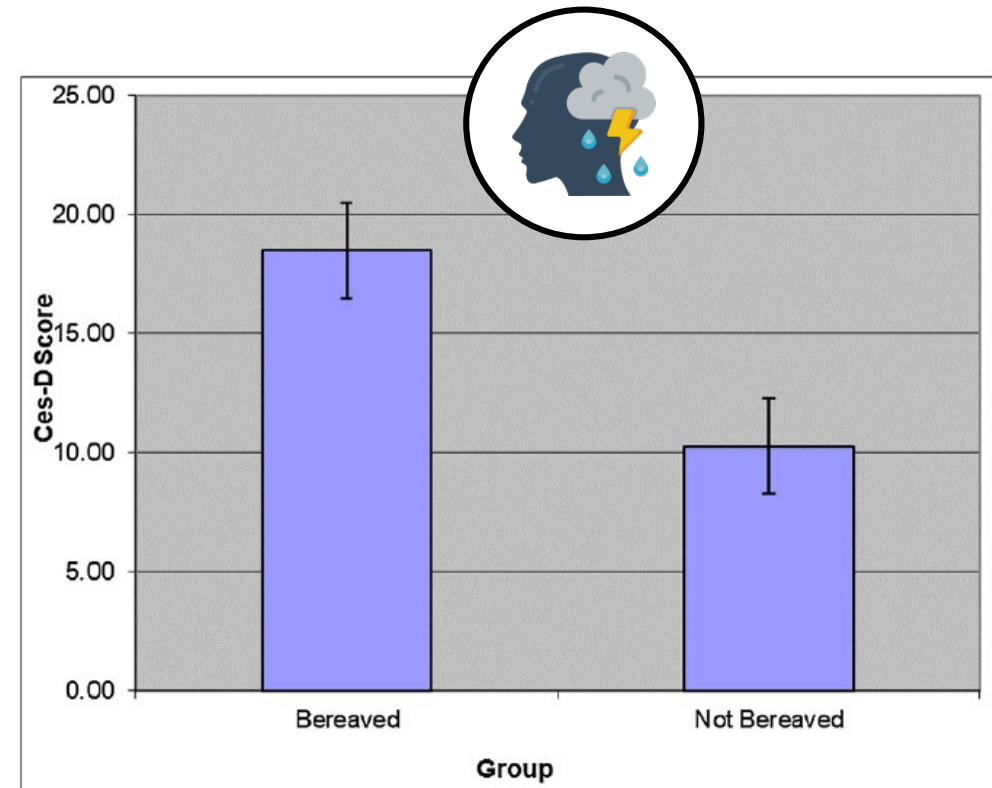
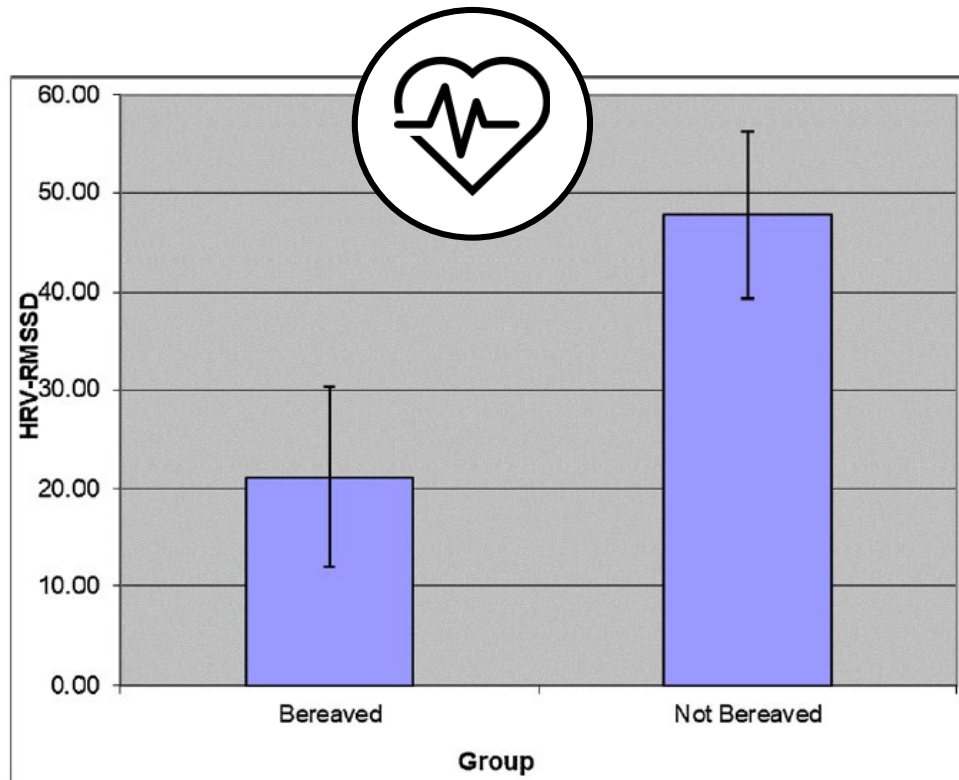
- Steroids
- Inflammatory diseases
- Current cancer
- Surgery in last 3 months
- Illicit drug use
- Psychiatric disorders (case by case)
- Benzodiazepines

Adjustments

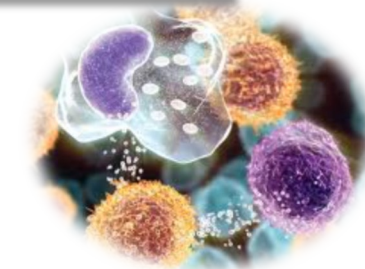
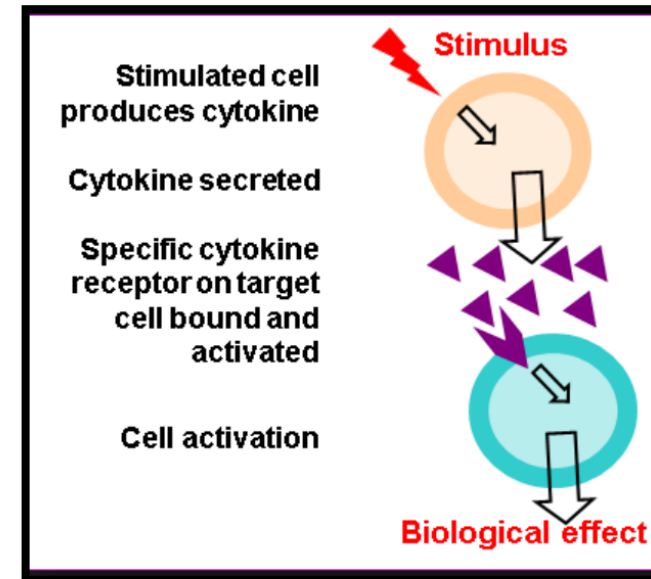
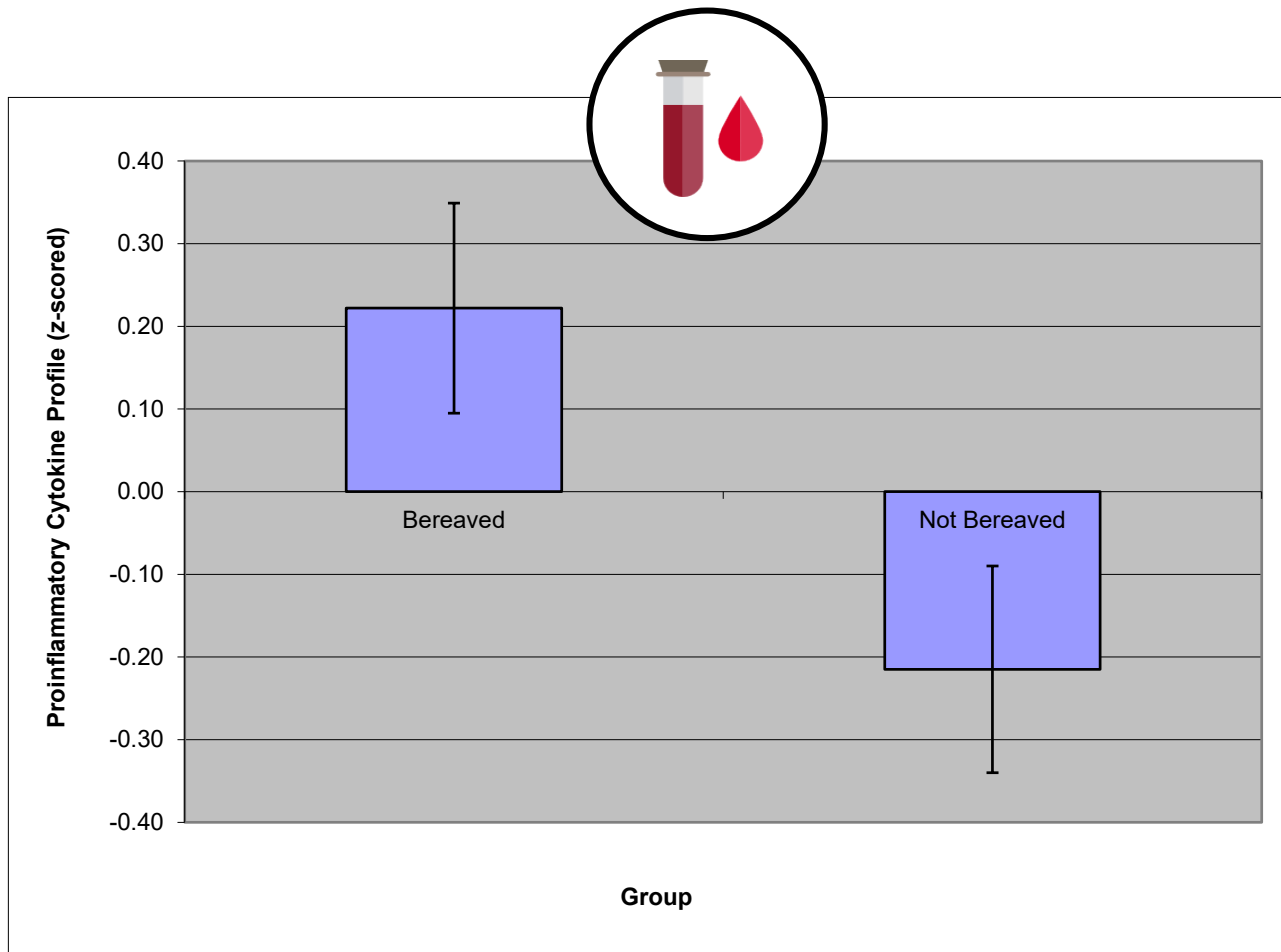
- BMI
- Age
- Statins
- Exercise
- Alcohol
- Smoking
- Sex
- Education
- Beta Blockers
- SSRI
- Bipolar medications
- Stimulants

O'Connor et al. (2009). To assess, to control, to exclude: Effects of biobehavioral factors on circulating inflammatory markers, *Brain Behavior, & Immunity*, 887-897.

Bereaved Spouses have poorer heart rate variability & worse depression compared to controls.

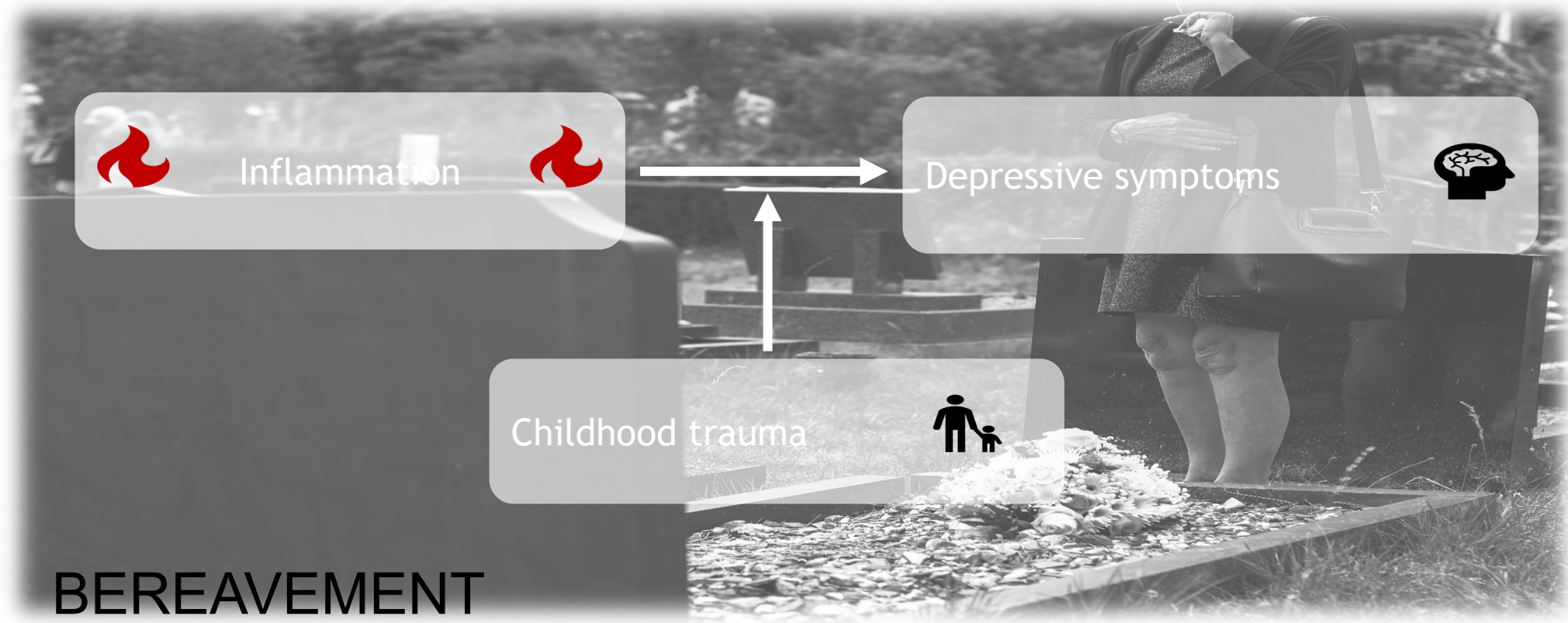


Results



Pro-inflammatory Cytokines

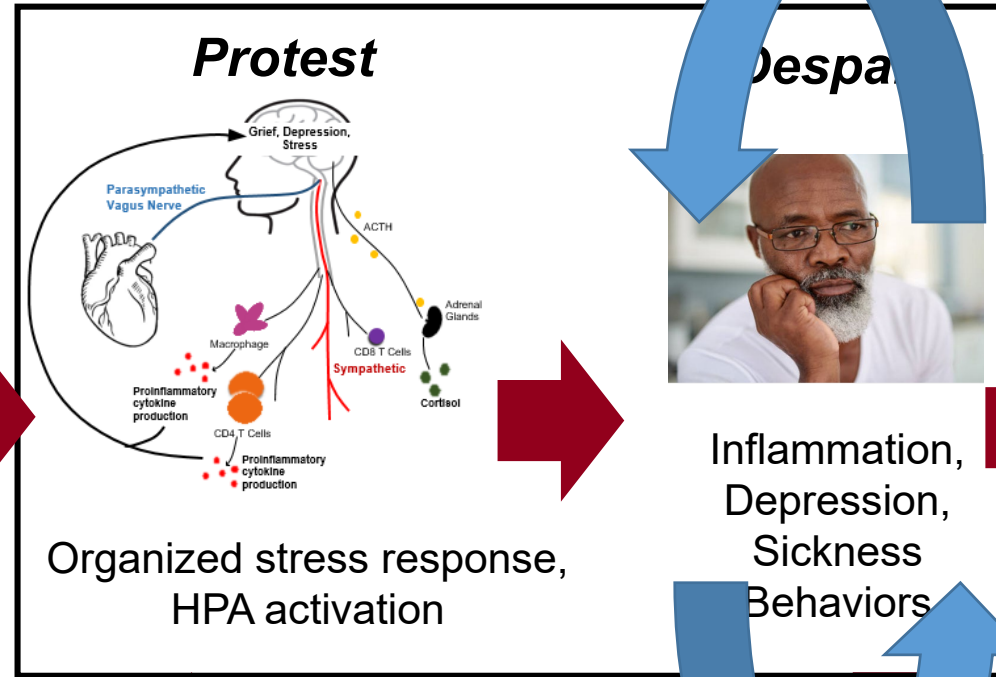
Inflammation, Depression, & Childhood Trauma



Partner as Primary Attachment Figure



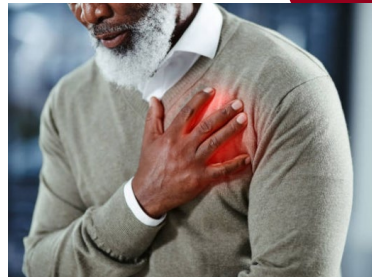
Loss of Partner



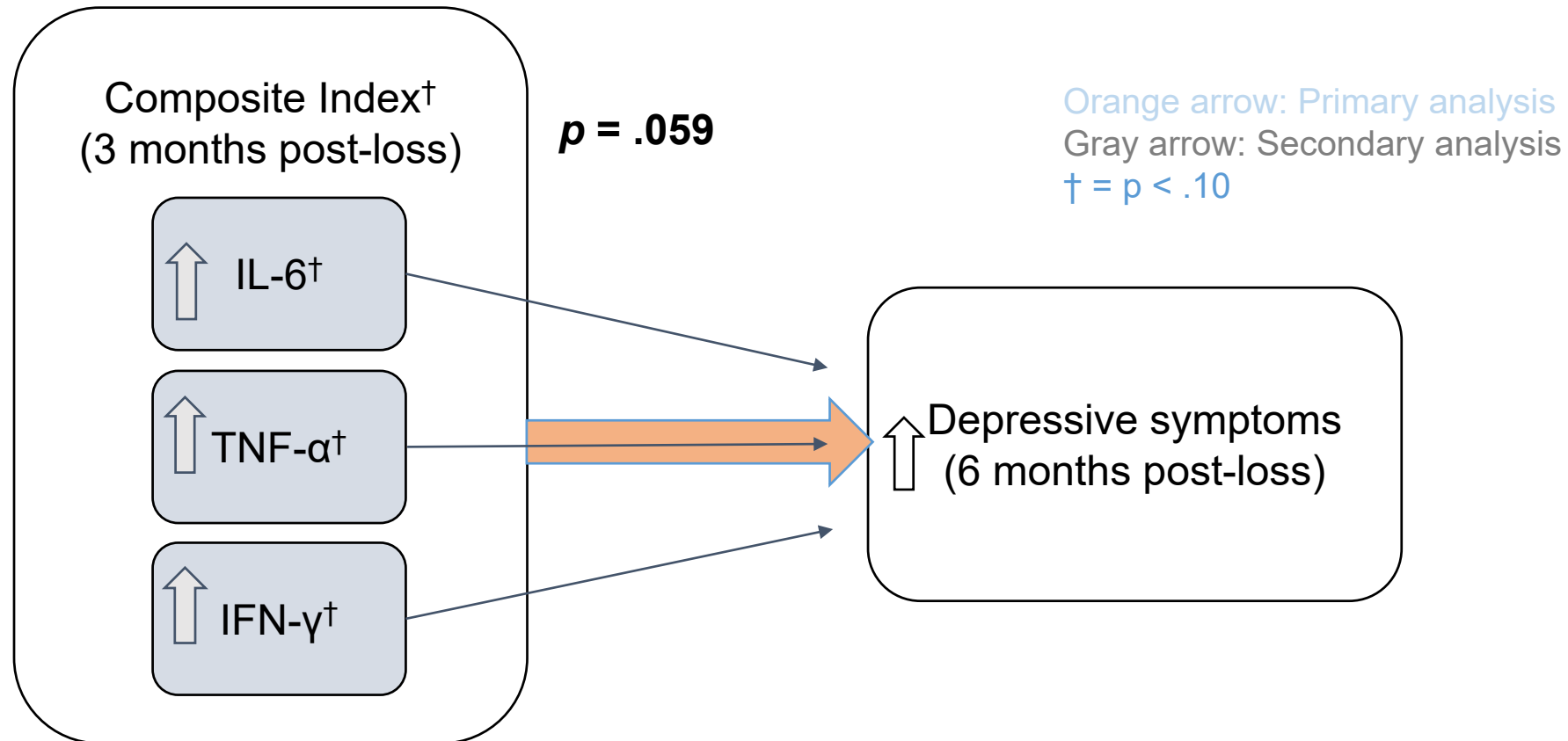
Recovery



Risk

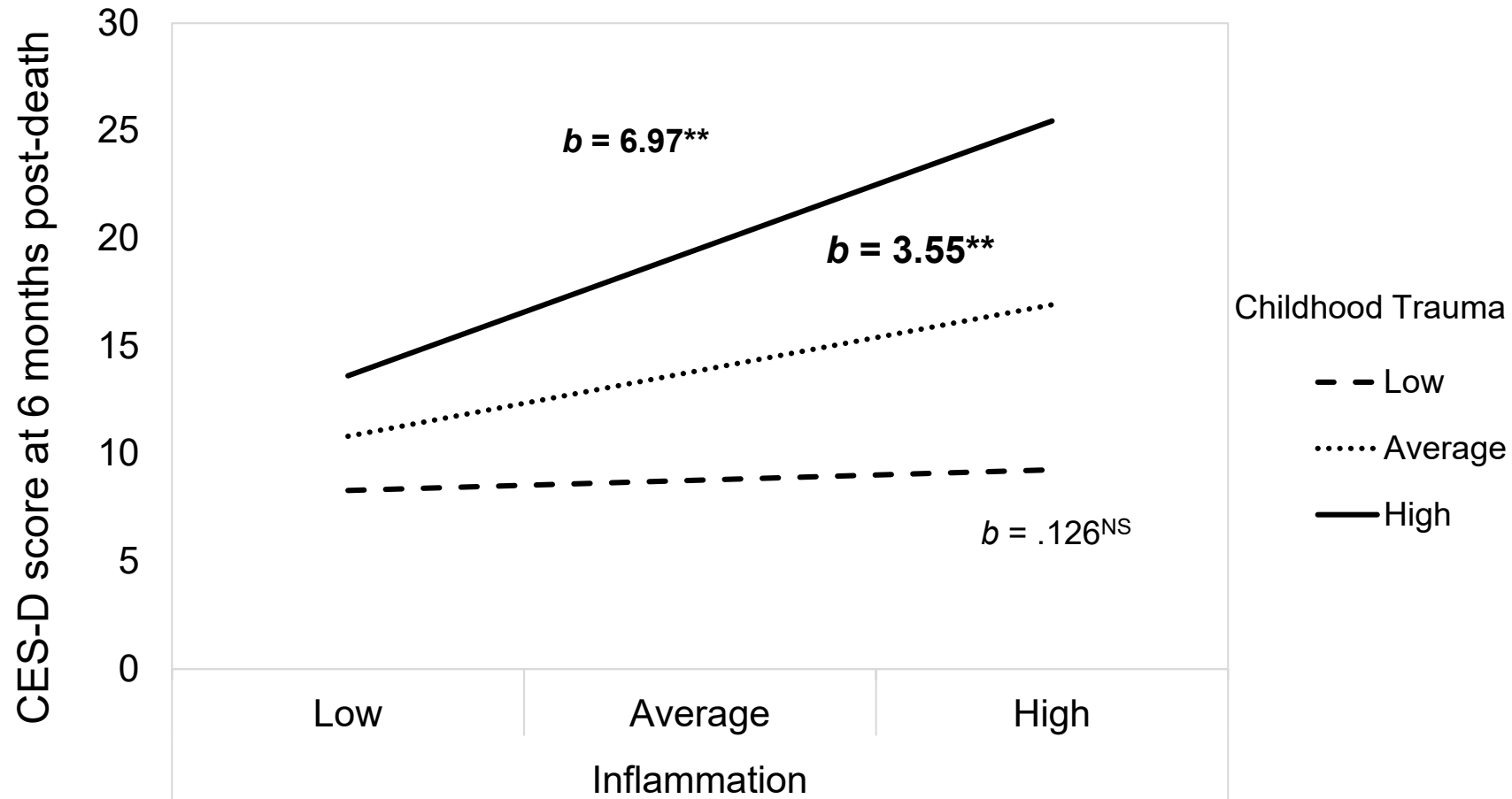


Results



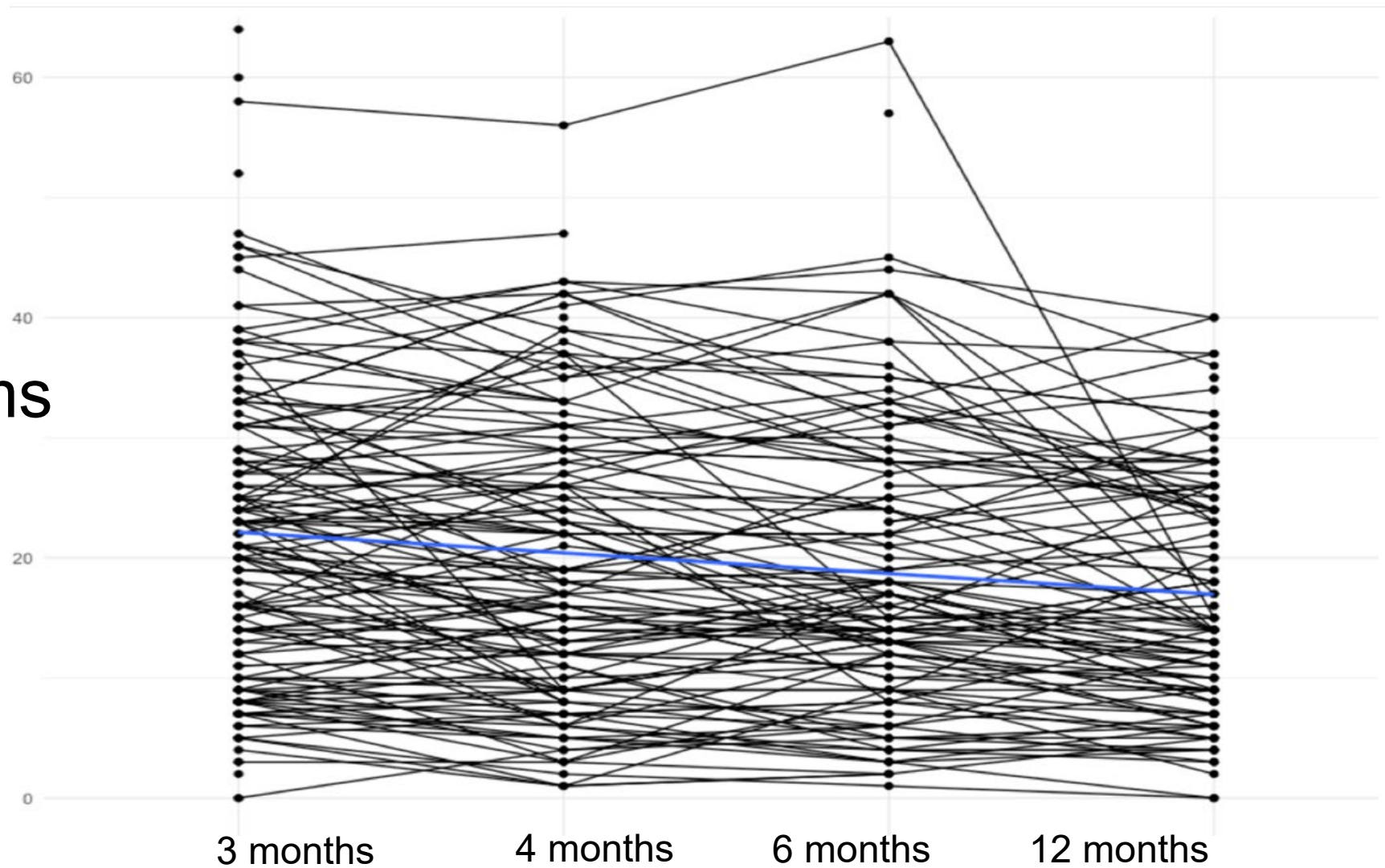
Wu, L., LeRoy, A. S., Heijnen, C. J., & Fagundes, C. P. (Under Review). Inflammation, childhood trauma, and future depressive symptoms among bereaved spouses.

Childhood Trauma Moderates Inflammation & Later Depressive Symptoms

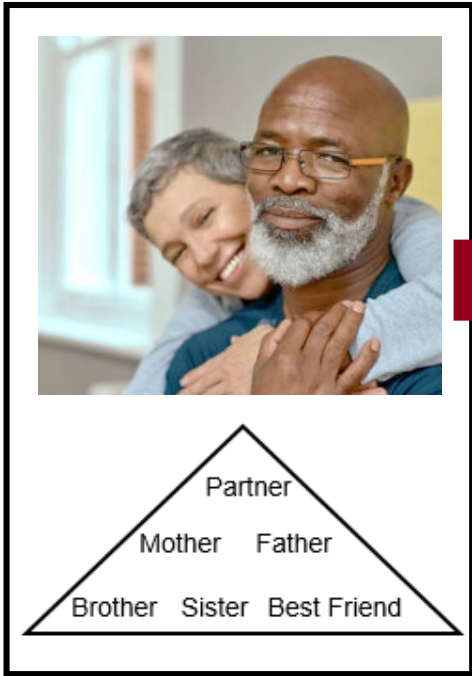


Everyone Grieves Differently

Grief
Symptoms



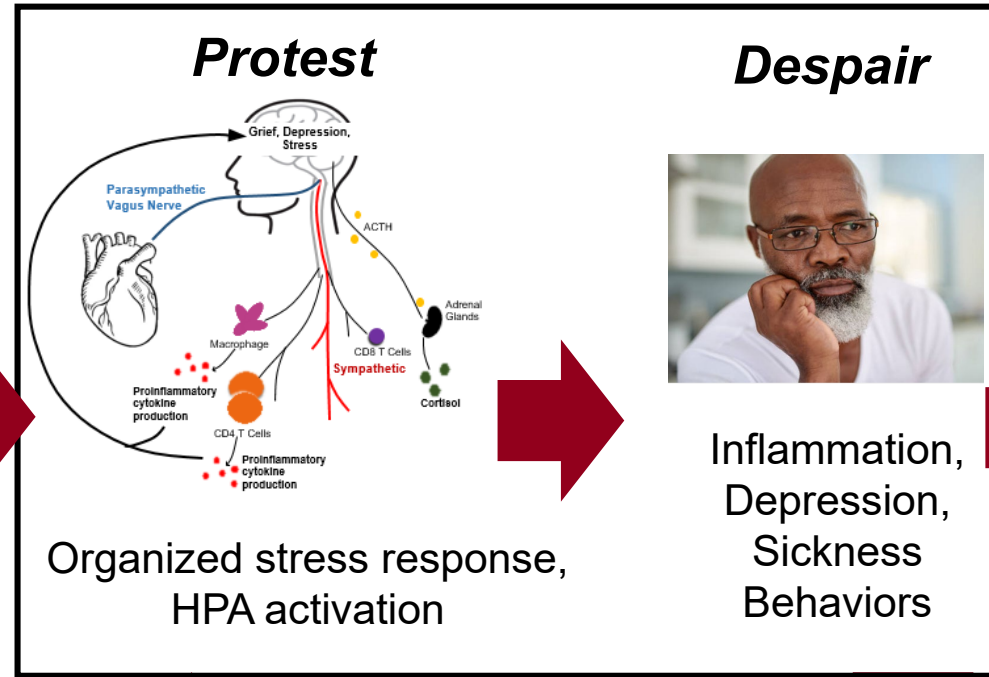
Partner as Primary Attachment Figure



Loss of Partner



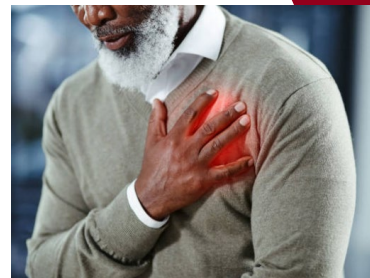
Dysregulation



Reorganization



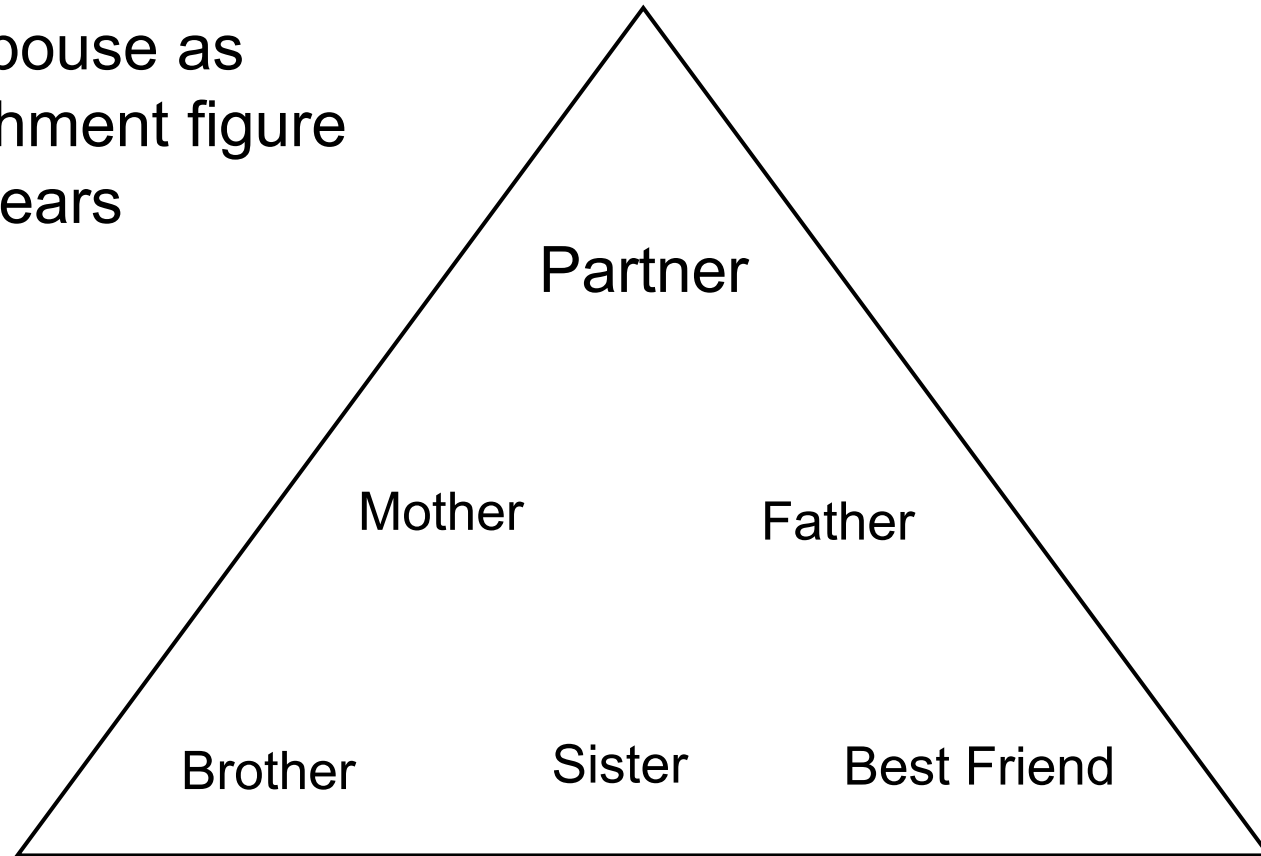
Risk



Mother Father
Brother Sister Best Friend
NO REORGANIZATION

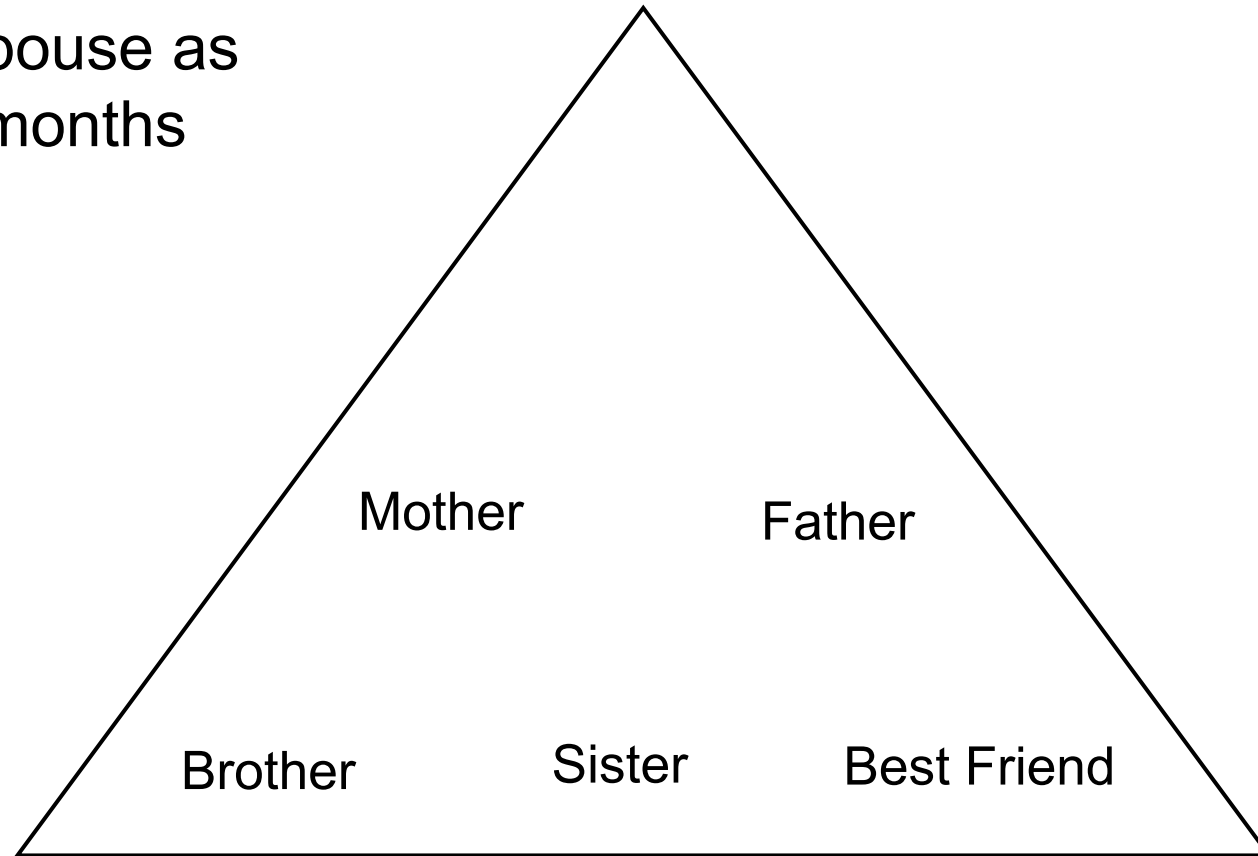
Current Projects: Attachment Hierarchy Reorganization

82% report spouse as primary attachment figure in the last 5 years



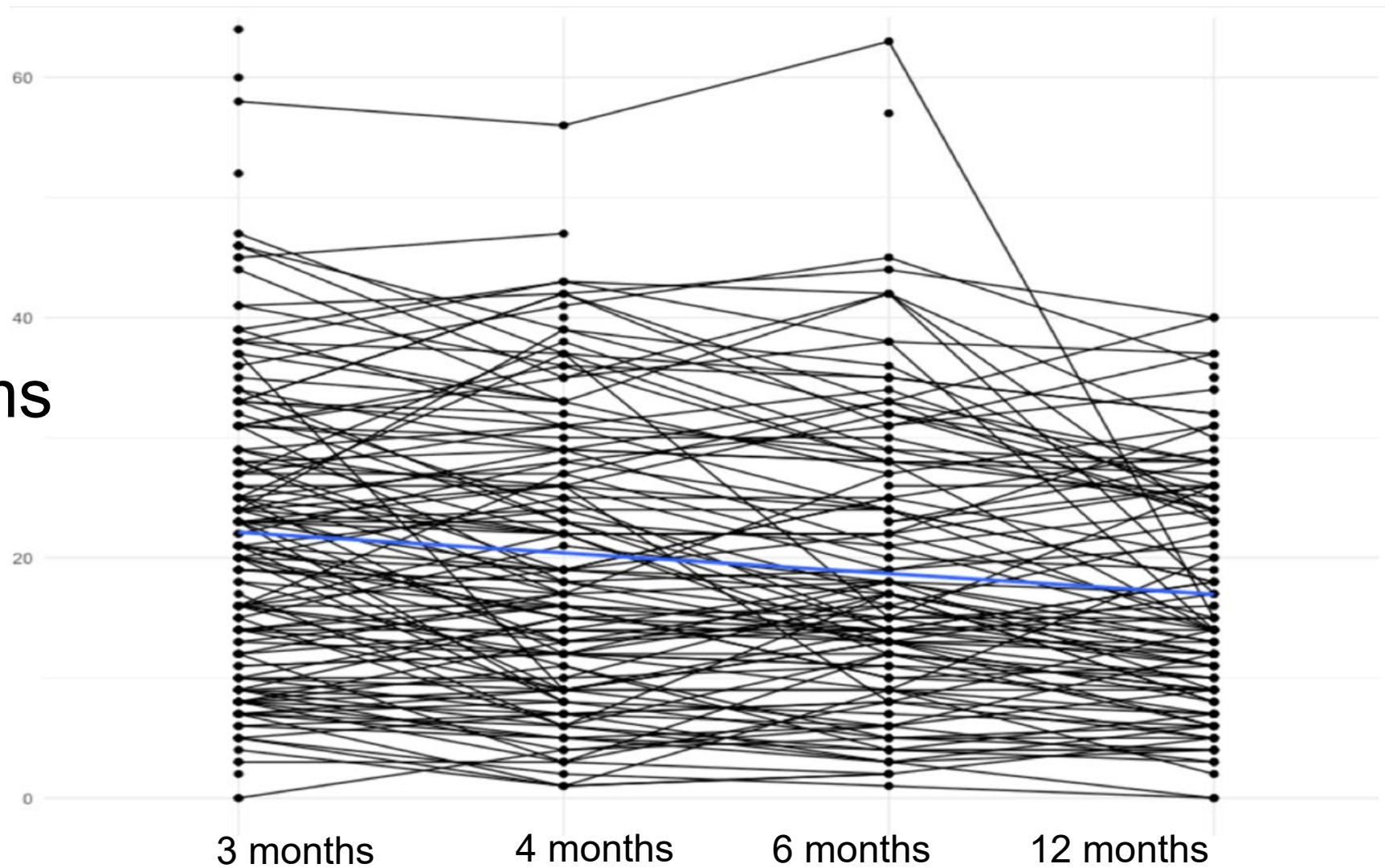
Current Projects: Attachment Hierarchy Reorganization

11% report spouse as primary at 3 months post-loss



Everyone Grieves Differently

Grief
Symptoms



Attachment Styles

Attachment Anxiety



Mental Health



Physical Health



Inflammation



Mental Health

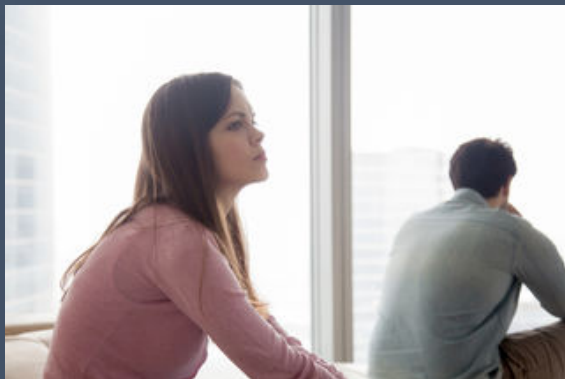


Physical Health

NS

Inflammation

Attachment Avoidance





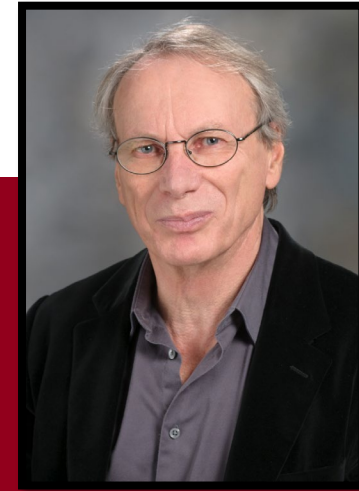
Contact: asl6@rice.edu



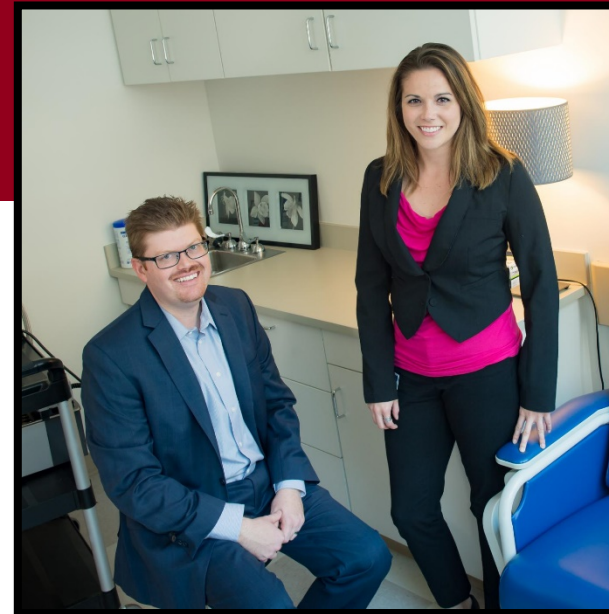
@DrAngieLeRoy



Cobi Heijnen



Robert Dantzer



Christopher Fagundes

Linguistic Mechanisms Related to the Attachment System

Adult Attachment Interview

- Structured, semi-clinical interview
- Questions focus on
 - Early attachment experiences & their effects
 - Caregivers – mother, father
 - Major Loss Experiences
- 50 Bereaved Participants
 - Traditional Coding Scheme
(Main, Kaplan, Cassidy, 1985)
 - Utilizing LIWC to identify linguistic mechanisms

