

# Aging and Emotional Resilience to Extreme Weather: Testing Mechanisms Using the Understanding America Study

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# Global climate change

- Increased prevalence and intensity of disastrous weather events



Swananoa, NC. Travis Long / The News & Observer / TNS via Getty Images

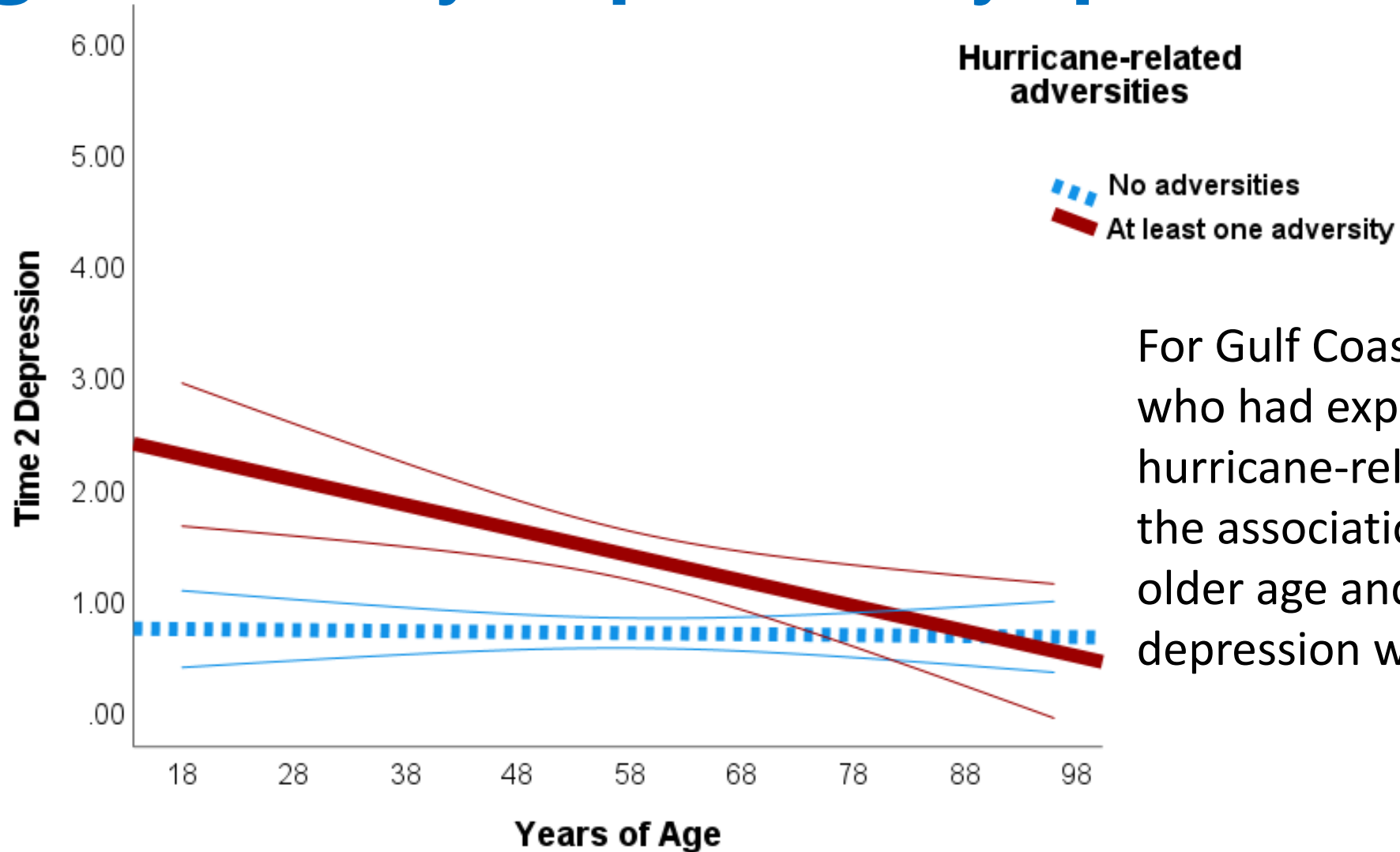
# Older Adults and Disasters



- Older adults (65+ years)
  - Less likely to survive disasters (Aldrich & Benson, 2008)
  - Emotional Well-Being
    - Mixed results for age & depression, anxiety (Parker et al., 2016; Strough et al., 2025 )

Image: Hurricane Harvey CBA.CA

# Age X Adversity: Depression Symptoms



For Gulf Coast residents who had experienced hurricane-related adversity, the association between older age and less depression was *stronger*

**What mechanisms contribute to age differences in emotional resilience following extreme weather?**

# Temporal Orientations



- Younger adults
  - Motivated to prepare for future
- Older adults
  - Motivated to enjoy life in the ‘here and now’
  - Better emotional well-being

# Coping Strategies

- Life Experience
  - Strengths in coping
    - Better emotional well-being



# Research question

**Are age differences in emotional resilience to adversities associated with extreme weather accounted for by:**

- temporal orientations?
- coping strategies?

# Methods: Sample

**USC Dornsife**  
Dana and David Dornsife  
College of Letters, Arts and Sciences  
*Center for Economic and Social Research*

**CENTER FOR ECONOMIC AND SOCIAL RESEARCH**

## Understanding America Study

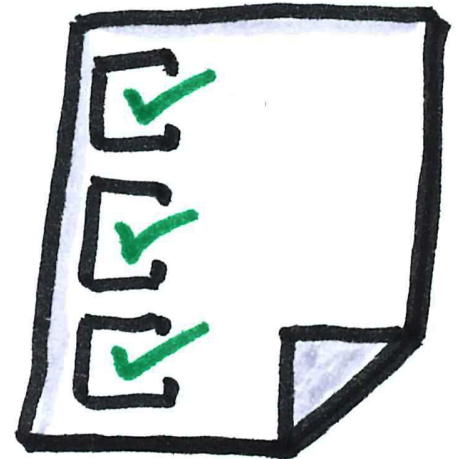


## 12 Monthly UAS Surveys

- August 2024 – July 2025
  - Experiences in past 30 days
- N= 1,860 US adults
  - *M*age= 54.55 yrs (SD=16.27) range 18-97 yrs
  - 58.6% female
  - 73.8% White
  - 11.6% Hispanic
  - 44% at least a Bachelor's degree
  - 50.3% household income \$60K per yr or more

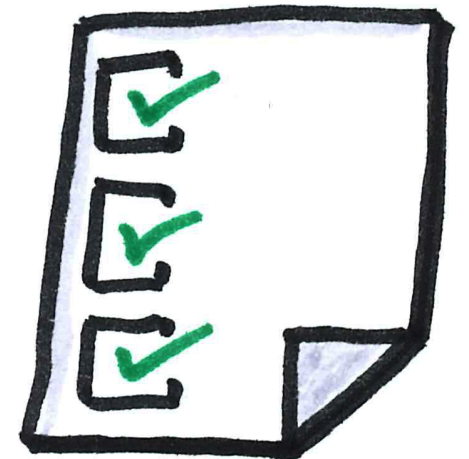
# Methods: Extreme Weather

- Have you experienced any extreme weather events or natural disaster?
  - Yes - Checklist of **16** randomly-ordered events
    - Examples:
      - severe storm
      - extreme heat
      - hurricane



# Methods: Adverse Consequences

- Have you experienced any negative consequences of the extreme weather event(s) or natural disaster(s)?
  - Yes
    - Checklist of **17** randomly-ordered consequences
      - Examples:
        - Property loss or damage
        - Evacuation
        - Loss of income



# Methods: Event Group

- No event group (n=637)
  - No extreme weather or natural disaster, no adversity
- Weather group (n=620)
  - Extreme weather or natural disaster, no adversity
- Adverse Consequences Group (n= 603)
  - Extreme weather or natural disaster and an associated adversity

# Methods: Temporal Orientations

How often during the past week did you spend thinking about:

- the **past**?
- the **present**?
- the **future**?

1=rarely or never

2= sometimes

3= often

4=most or all of the time

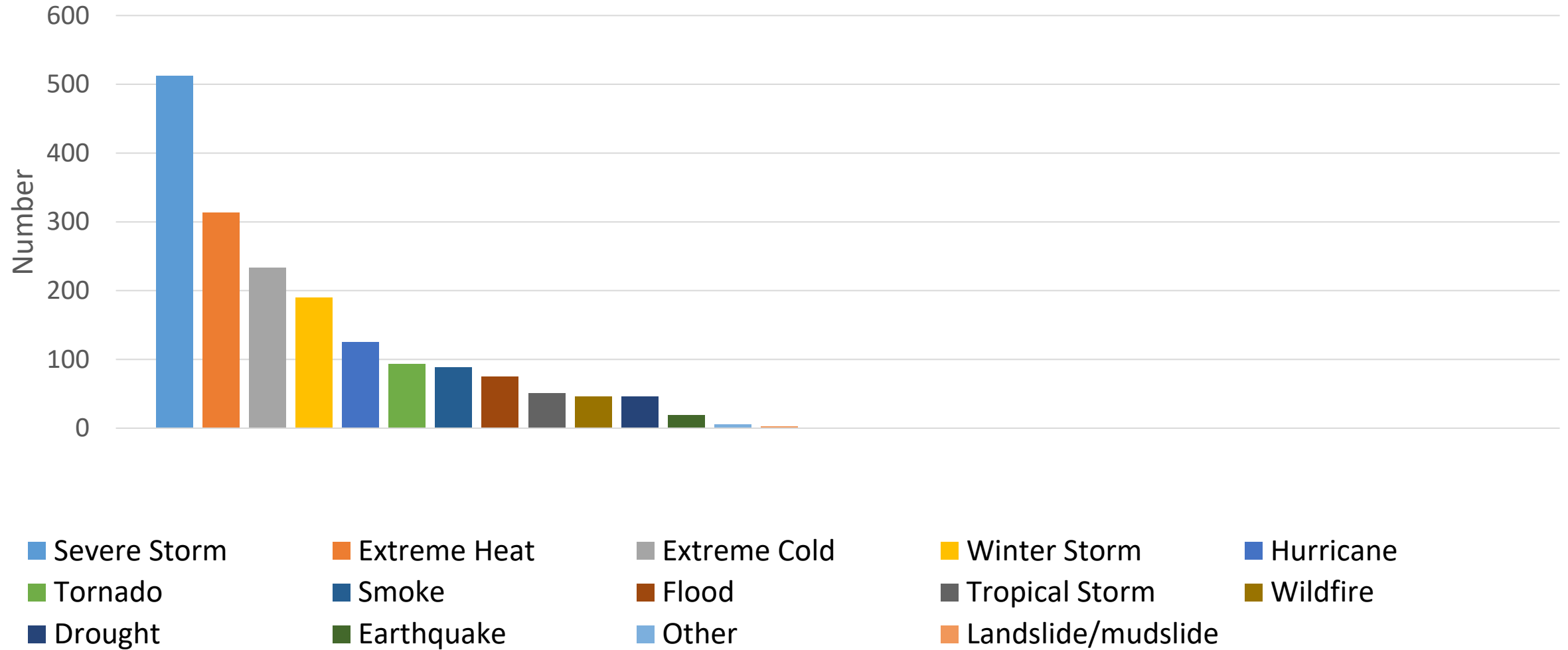
# Methods: Coping Strategies

- **Cognitive reappraisal** (3 items,  $\alpha = .79$ )
  - “I control my emotions by changing the way I think about the situation I am in.”
- **Expressive suppression** (3 items,  $\alpha = .79$ )
  - “I control my emotions by not expressing them.”

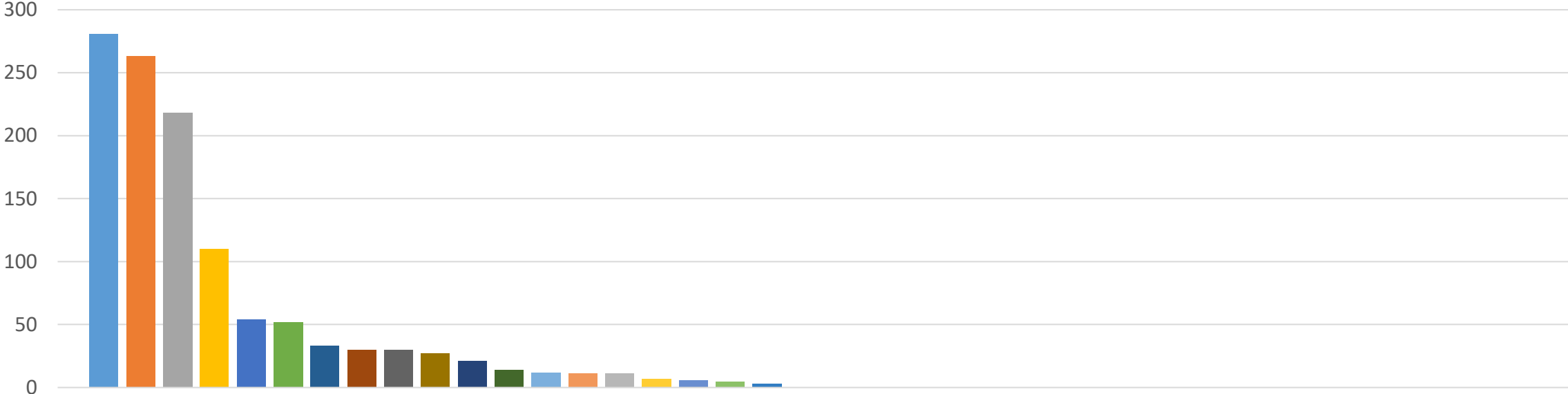
# Methods: Emotional Resilience

- Anxiety Symptoms (PHQ-2)
  - “nervous, anxious, or on edge”
  - “not being able to stop or control worrying”
    - 0=not at all, 3=nearly every day

# Extreme Weather Events

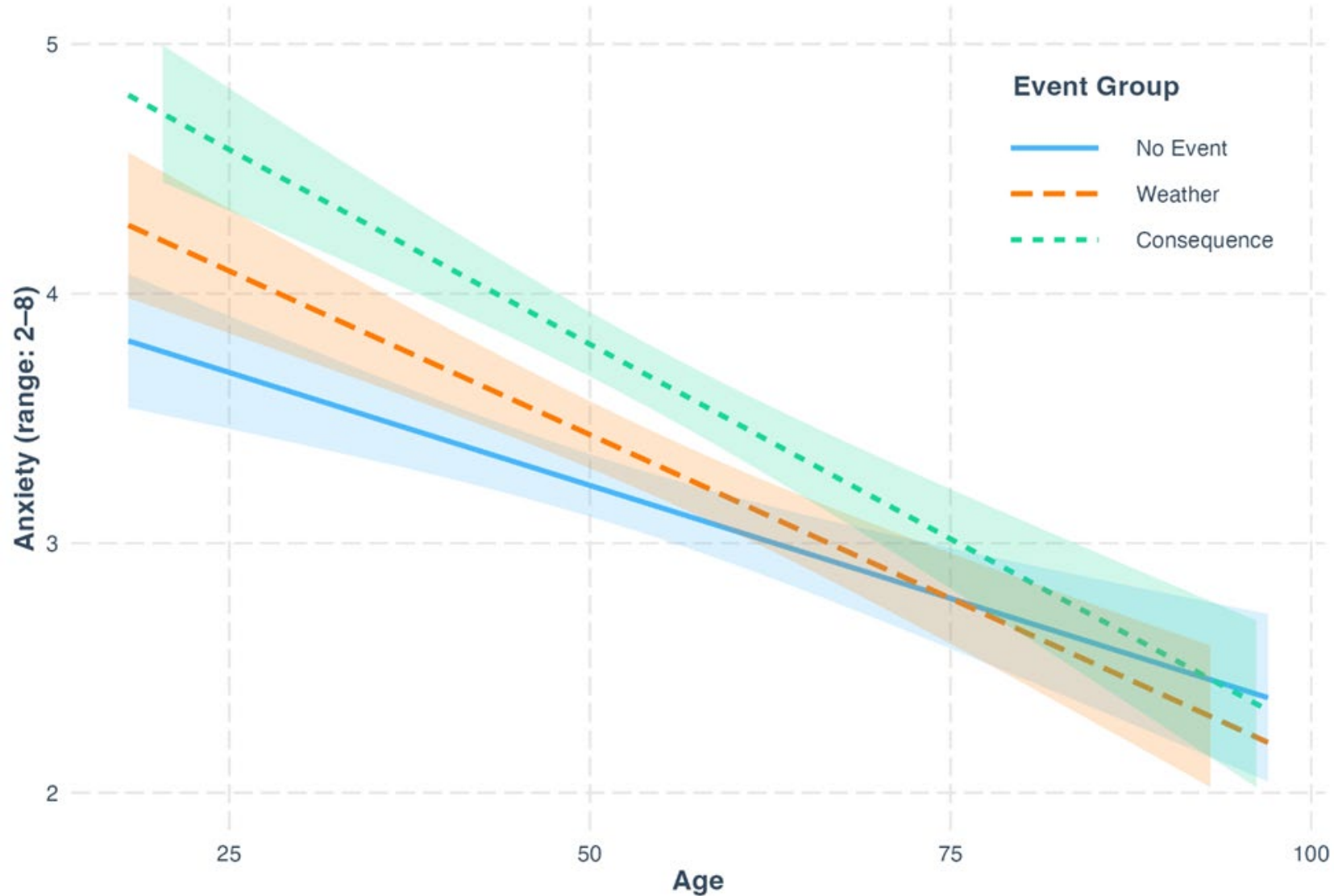


# Adverse Consequences



- Property Loss/Damage
- Loss of Power/Utilities
- Unable to be Outdoors
- Health Problems
- Evacuation
- Lost Income
- Additional Debt
- Unable to meet expenses
- Unable to get to work
- Inadequate Food
- Other
- Unable to obtain meds
- Higher utility costs
- Person you know injured/killed
- Unable to get medical care
- Pets injured/lost/killed
- Flooding home/roads
- Inadequate Childcare
- General Discomfort

# Age X Event Group: Anxiety Symptoms

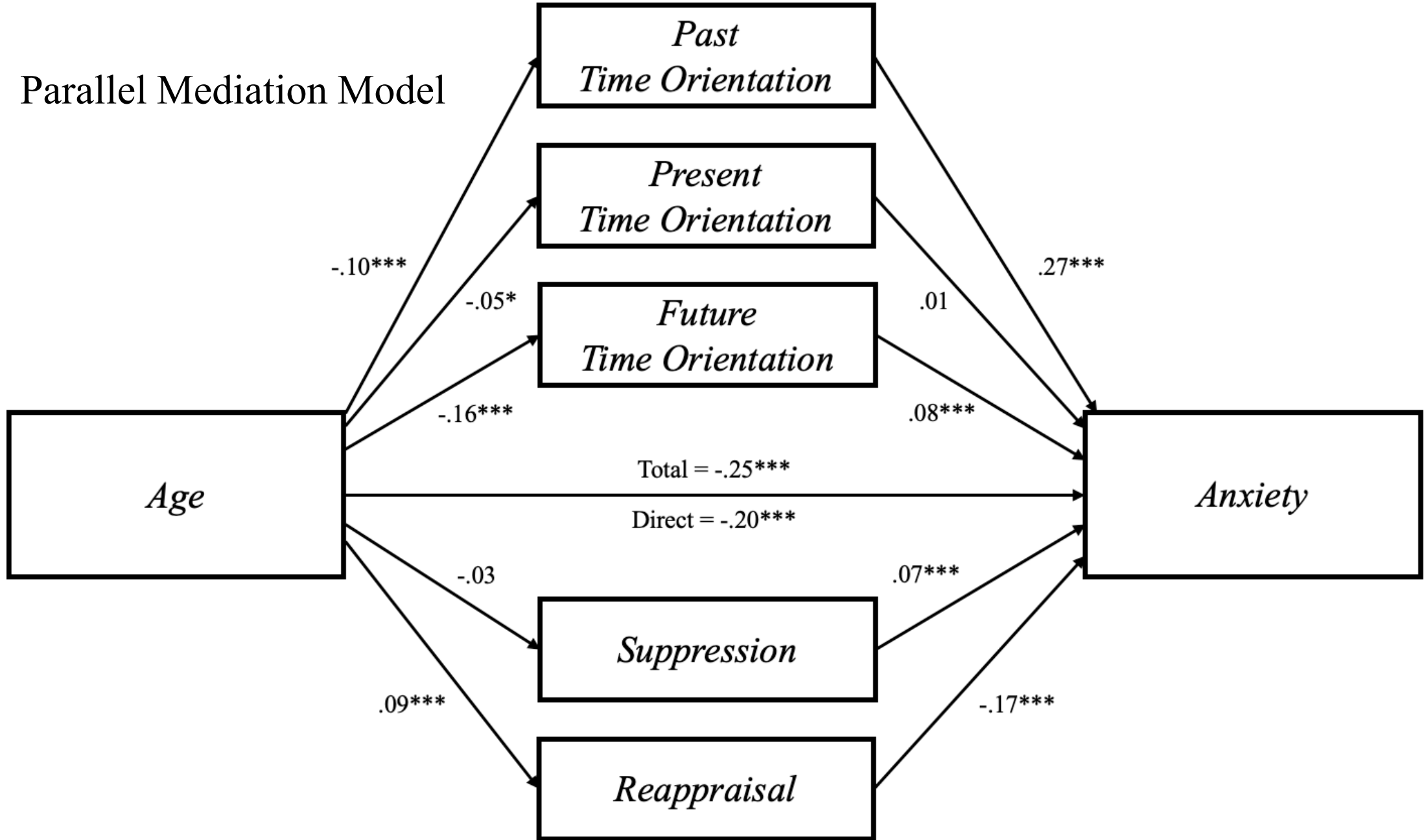


# Research question

**Are age differences in emotional resilience to adversities associated with extreme weather accounted for by:**

- temporal orientations?
- coping strategies?

Parallel Mediation Model



# Summary



- Adversities associated with extreme weather enact a cost on emotional well-being
- Age differences in emotional resilience
  - Temporal orientations
    - Past and future
  - Coping strategies
    - Cognitive reappraisal

# Limitations, Future Directions, Implications

- Correlational data
- Diverse events
- Disaster preparedness & response



Spruce Pine, NC. [wncmagazine.com/feature/one\\_year\\_later\\_reflecting\\_hurricane\\_helene\\_storm\\_shaped\\_wncs\\_landscape](https://wncmagazine.com/feature/one_year_later_reflecting_hurricane_helene_storm_shaped_wncs_landscape)

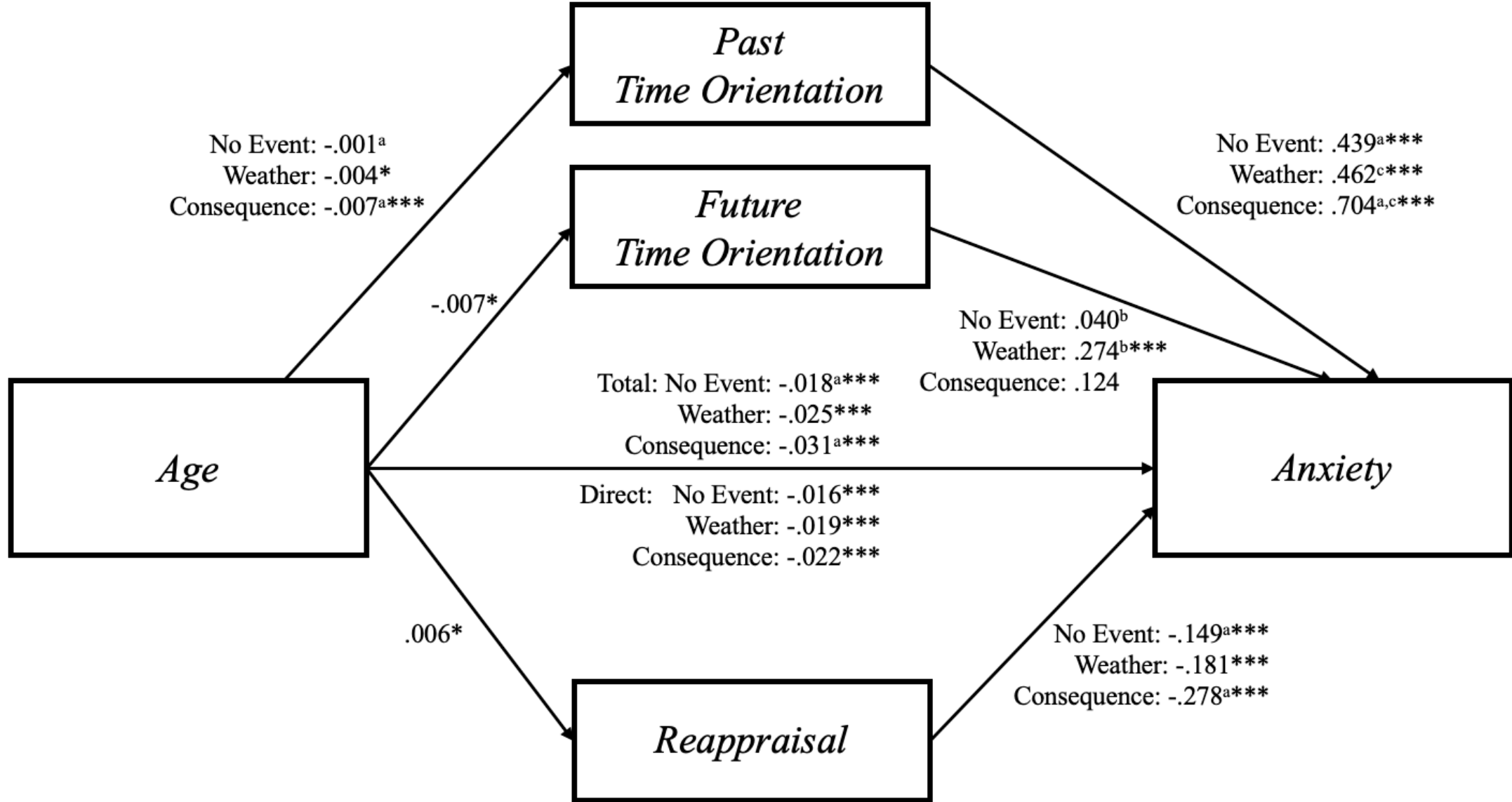
# Thank you!



## Contact Information

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# Age X Event Group: Depression Symptoms

