# Rumination, Depression, and Decision-making among Young Adults: A Network Analysis



Sofia Reyes Ochoa, Madeline Hanks, Alejandro Leon-Romero B.A., Max J. Owens, Ph.D.
University of South Florida

Spn

-0.40\*\*\*

Rtn

0.19\*

-0.26\*\*

0.33\*\*\*

0.26\*\*

0.38\*\*\*

0.24\*

Int

0.34\*\*\*

0.28\*\*

C-R

#### Introduction

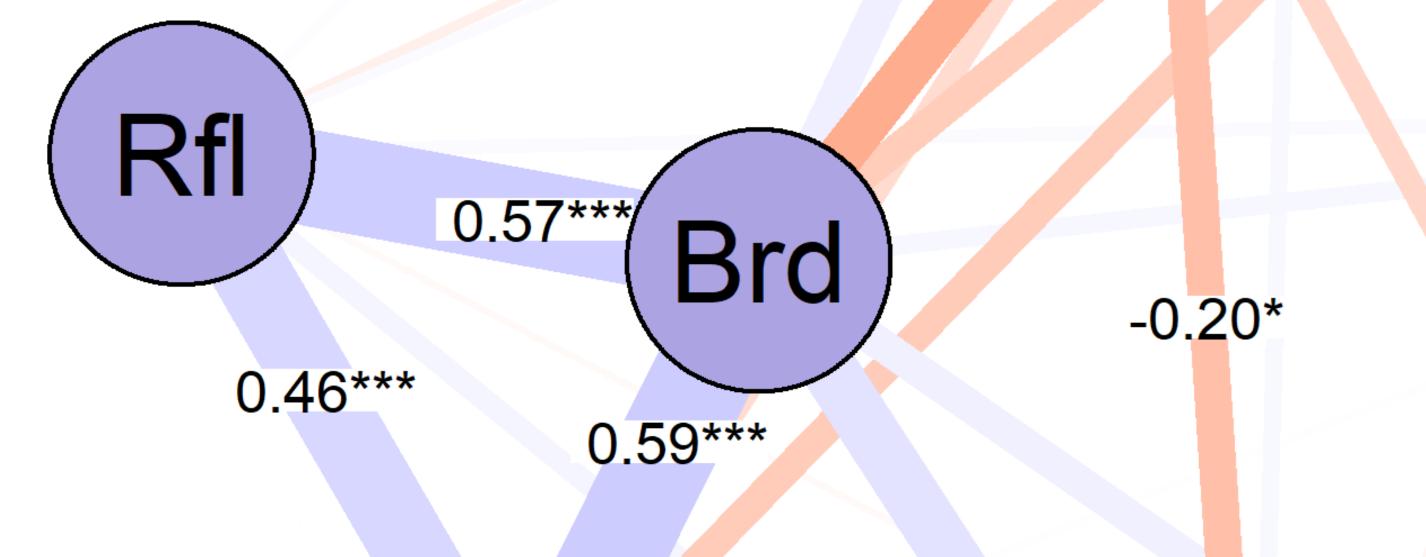
- Depression is a complex spectrum
   of cognitive and emotional symptom
   combinations.
- Network Analysis is used to explore
  the structure of
  psychopathology. This analysis
  maps the interplay of rumination,
  depression, and decision-making
  styles.
- We proposed that rumination and co-rumination will load as bridge nodes, such that decisionmaking is related to depression through rumination and corumination.

## Co-Rumination

C-R: Co-Rumination

# Decision Making StyleAvd: Avoidant

- Spn: Spontaneous
- Dpn: Dependent
- Rtn: Rational
- Int: Intuitive
- Depression
- Dpr: Depression
- Rumination
- Rfl: Reflection
- Brd: Brooding



Opr

### Methods

A sample of 110 USF Students were recruited through Sona and completed the following measures online:

- Beck-Depression Inventory-II (BDI-II) depression symptom severity
- General Decision-Making Scale (GDMS) rational, spontaneous, dependent, intuitive, or avoidant decision-making style
- 3. Ruminative Response Scale (RRS) measures repetitive and passive self-focused thoughts on one's negative feelings, events, and their causes.
- 4. Co-rumination questionnaire (CRQ) extent of repetitive, problem-focused talk with close friends

### **Network Analysis & Results**

- The 9 nodes are the measures we collected and their subscales.
- The 36 edges are Pearson correlations. 11 of them show significant positive relationships, and 3 reveal significant negative relationships.
- Brooding has a strength of 2.37.
- Brooding rumination and avoidant decision-making have the highest betweenness scores at 8 and 6.
- Brooding and depression have the highest expected influence of 1.53 and 1.23.
- Rational has an expected influence of −1.00,

### Discussion

- Brooding loaded has the strongest cumulative strength in correlations, and it's a frequent bridge node connecting depression to 5 decision-making styles with 3 significant correlations (Spn, Rtn, Avd) and a p-value of 0.06 for Dpn. This shows that brooding may activate depression and has the greatest influence in network activation.
- Avoidant decision-making is another common bridge linking nodes to brooding and depression.
- Rational decision-making is the most influential in deactivating the network.
- Dependent decision-making may act as a bridge between co-rumination and avoidant decision-making.
- Co-rumination is not a bridge node to depression, implying that co-rumination is less associated with adverse outcomes of depression. Previous research has found that co-rumination can yield some beneficial trade-offs (Mackenzie et al., 2023).

