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INTRO

- Disorders may be networks of dynamic and causal relationships between Sx
- Most network models have used cross-sectional data, which cannot identify directionality

<u>Aim</u>: examine (1) unique *longitudinal* relationships between individual Sx ("edges"), and (2) Sx centrality (i.e., how connected each Sx is to all other Sx)

METHODS

- 4,093 youth from the ABCD study
 - $M_{\text{age}} = 10.5 \text{ years}$

Northwestern University

- Transdiagnostic Sx assessed twice (6 months apart)
 - Youth-report Brief Problem Monitor

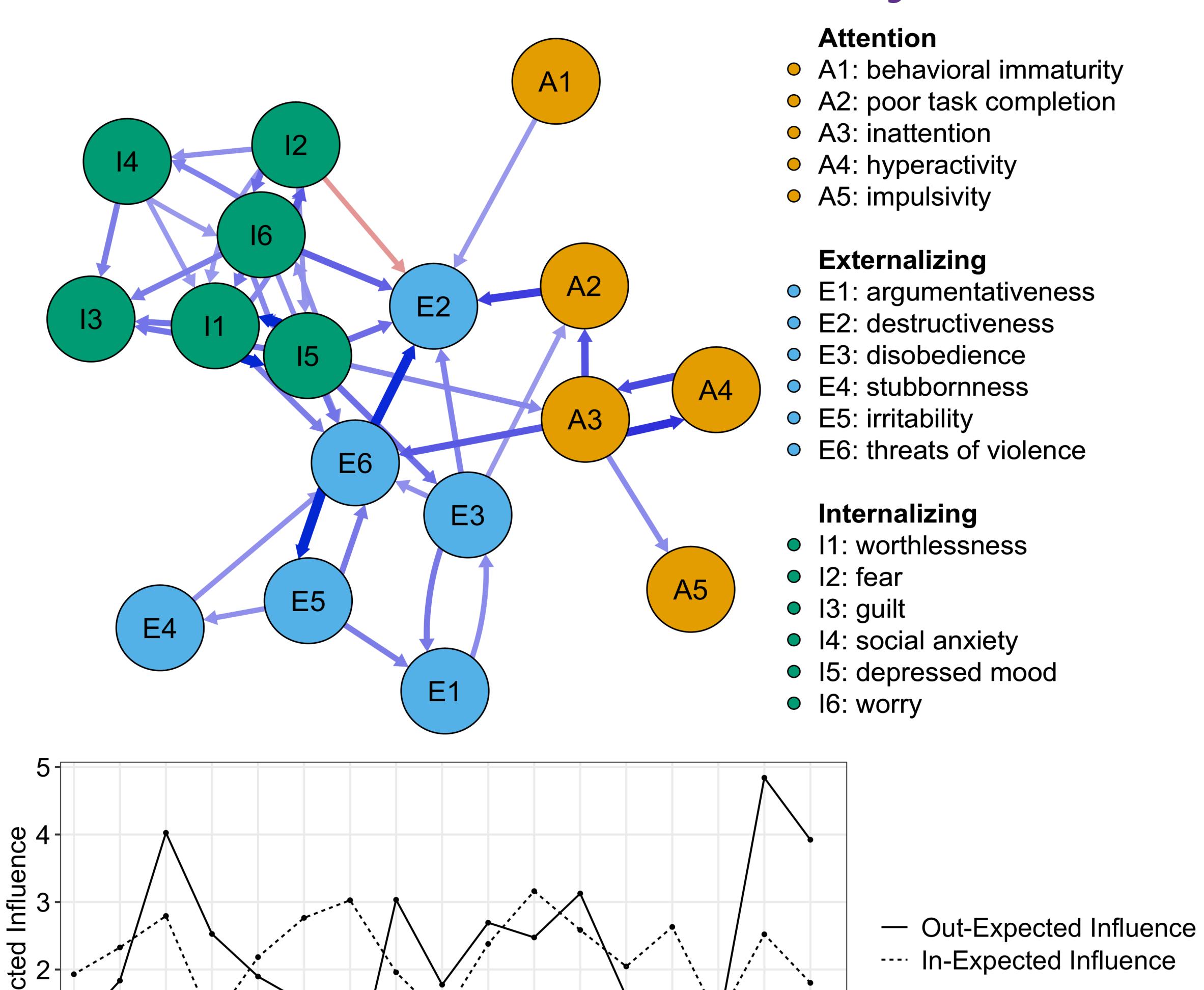
Data Analysis

- Cross-lagged panel network model
 - Series of regularized regressions with all Sx at T1 predicting each Sx at T2
 - Edges = unstandardized regression coefficients
 - Blue = positive; Red = negative
- Centrality
 - Out-expected influence = sum of outgoing edges
 - In-expected influence = sum of incoming edges
- Note: the network plot excludes autoregressive and weak (< .3) edges for interpretability

DISCUSSION

- - Consistent with hopelessness theory of MDD
- Destructiveness and threats of violence had highest in-expected influence
 - Most predicted by other symptoms at T1
- Results may differ for different time lags
 - More frequent sampling may be beneficial
 - 'True' time lag may differ for different edges and/or people

Depressed mood, inattention, and worry were the strongest prospective predictors of other symptoms in a longitudinal symptom network of 4,093 youths.



A1 A2 A3 A4 A5 E1 E2 E3 E4 E5 E6 I1 I2 I3 I4 I5 I6