

Network Analysis of the Association Between Symptoms of Parental Psychopathology and Children’s Executive Functioning



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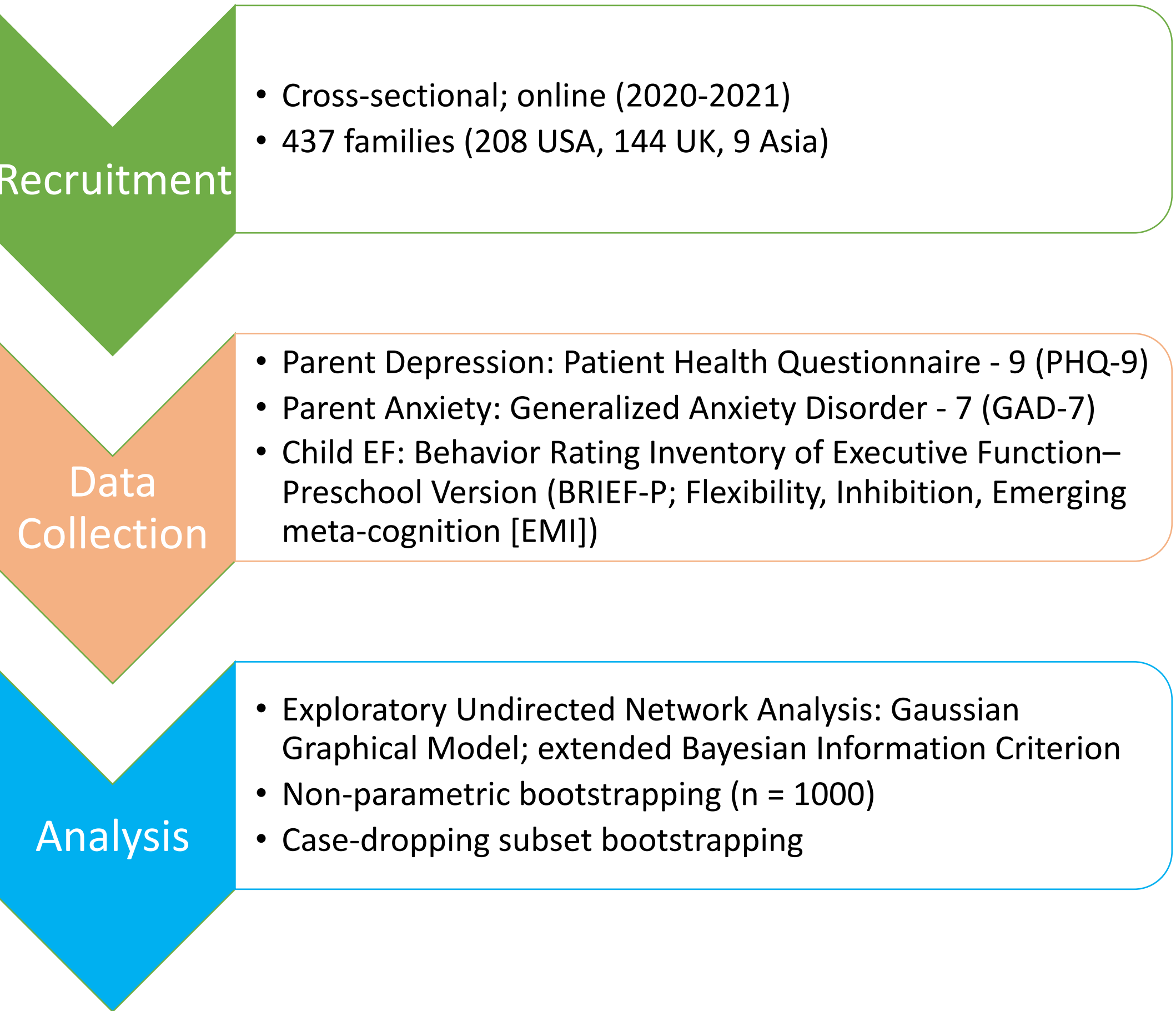
BACKGROUND

- Parent depression & anxiety associated with lower child executive functioning (EF).
- Associations between specific parent psychopathology symptoms and child EF unclear.

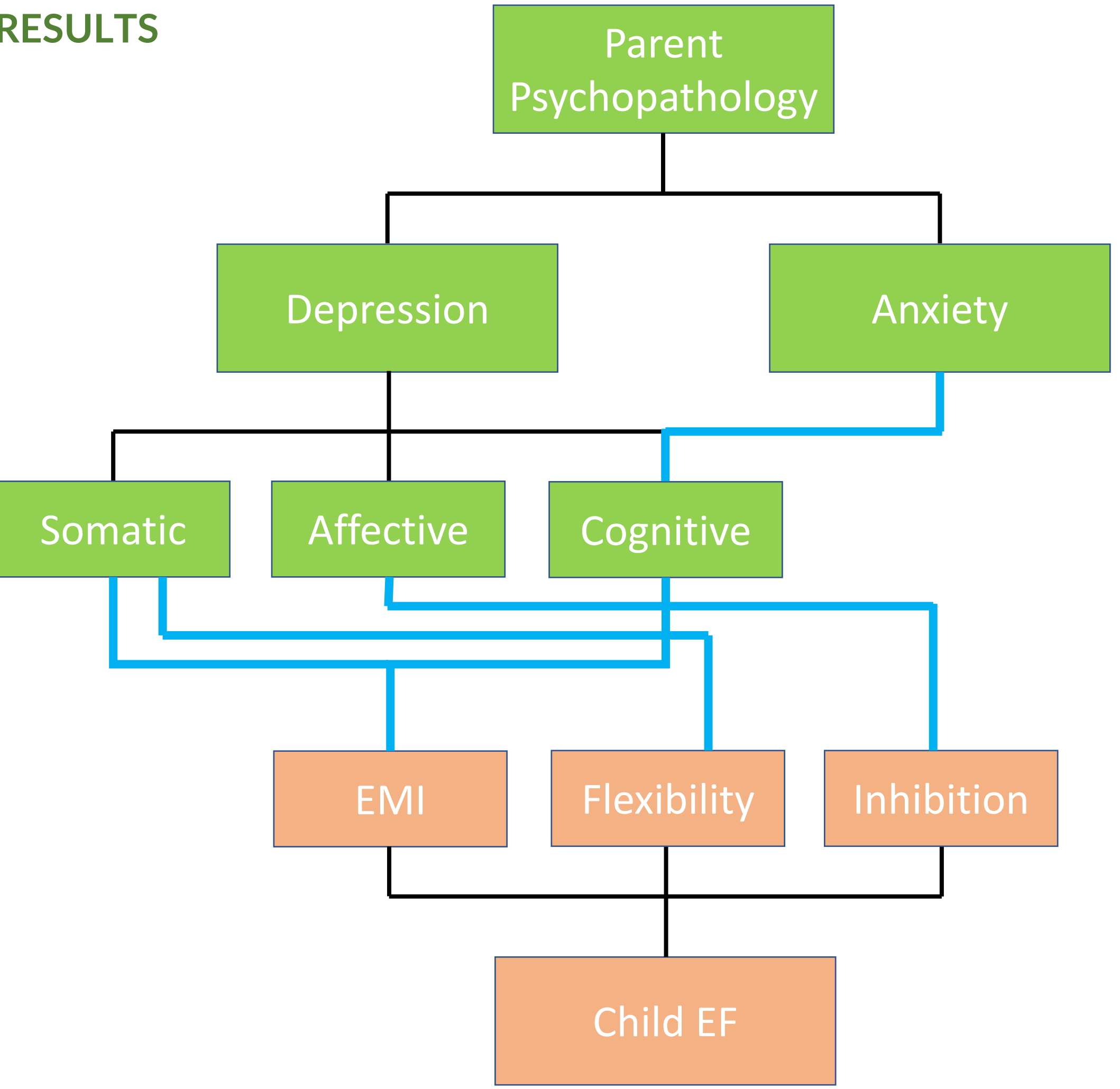
AIM

Network analysis to explore the association of parental anxiety & depression symptoms with child EF.

METHODS



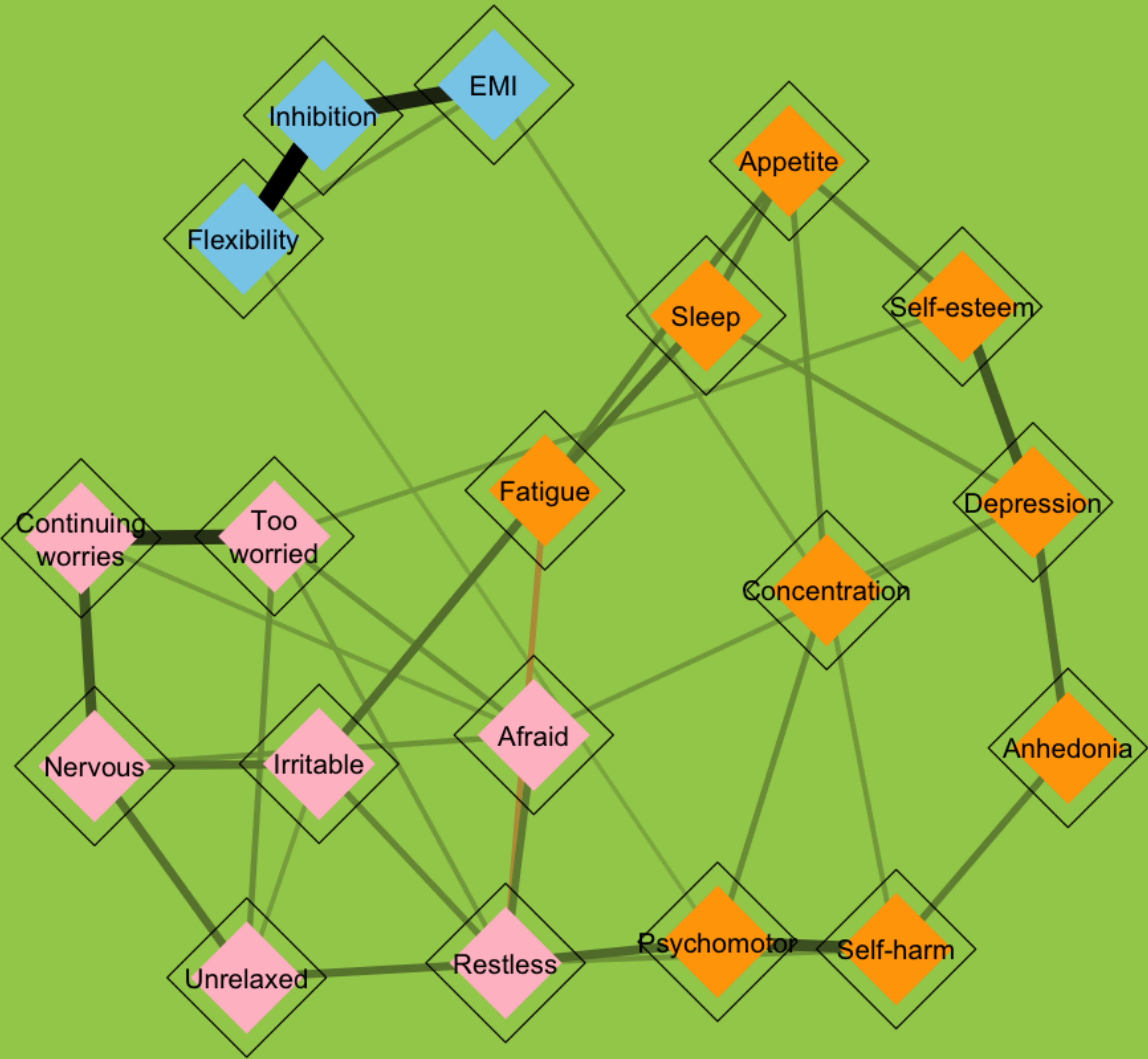
RESULTS



CONCLUSIONS

- Child EF associated more with parent depression than anxiety.
- Somatic → EMI/Flexibility; Affective → Inhibition; Cognitive → EMI
- Cross-sectional design, sample size, self-report data limit generalization

Parent cognitive symptoms of depression are associated with child emerging meta-cognition.



SUPPLEMENTAL INFORMATION

METHODS

Participant Demographics

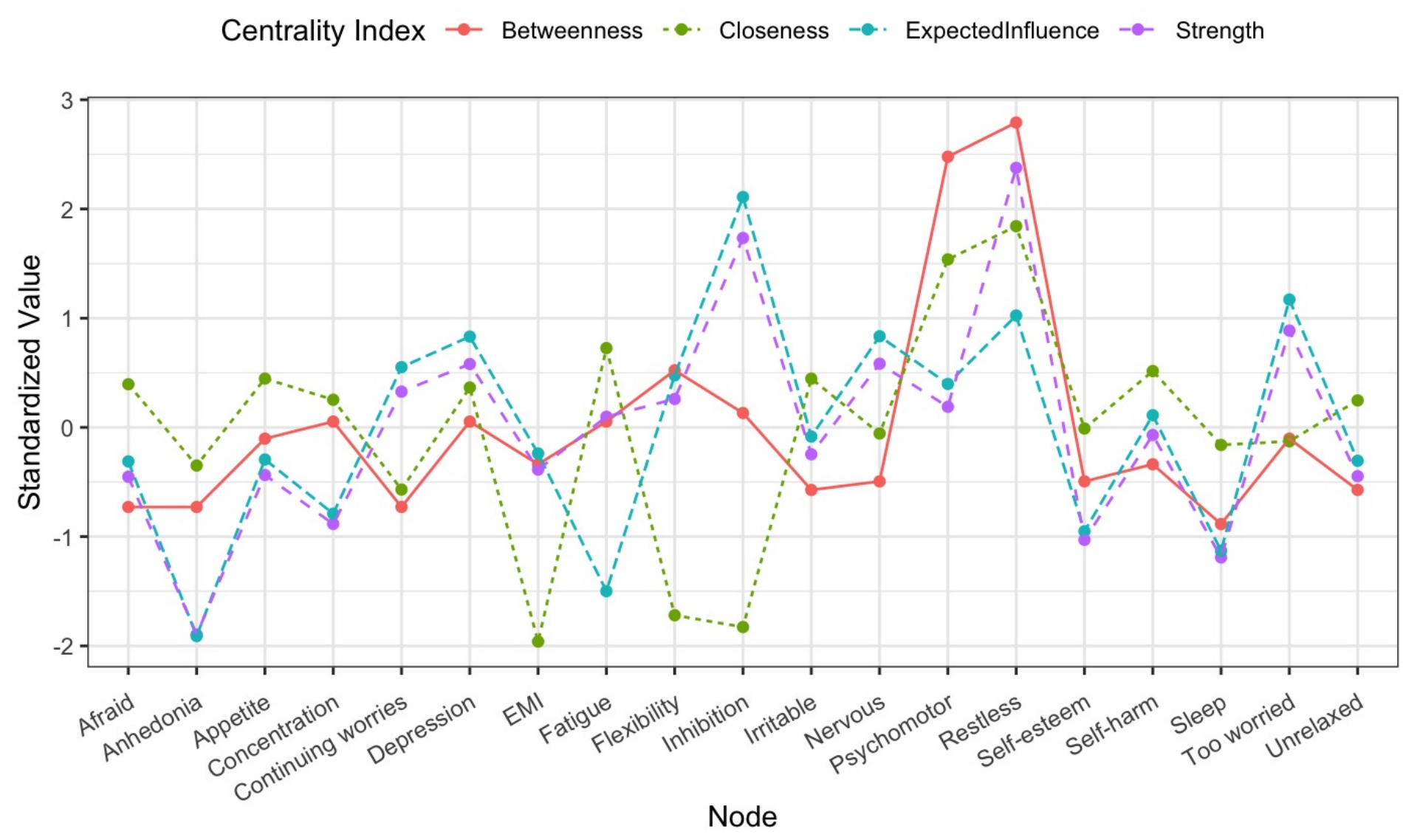
- 137 participants: online, non-paid
- 300 participants: Prolific, paid

	Parent	Child
Income (n)	<10k = 12 10k-30k = 118 30k-50k = 82 50k-70k = 73 70k-100k = 56 100k-120k = 23 120k-150k = 12 140k-160k = 7 >160k = 9	
Marital Status (n)	Married = 238 Unmarried = 199	
Gender (n)	She/her/hers = 273 He/him/his = 129 They/them/their = 1	She/her/hers = 145 He/him/his = 199 They/them/their = 4
Age (M; SD [range])	32.75; 5.72 [19, 51]	3.49; 1.02 [0.92, 7.17]
Race (n)	Asian = 16 American Indian/Alaskan Native = 5 Black = 69 Native Hawaiian/Pacific Islander = 2 Other = 6 White = 294	Asian = 14 American Indian/Alaskan Native = 9 Black = 66 Native Hawaiian/Pacific Islander = 1 Other = 8 White = 247

Data Analysis

- 115 missing data points imputed through Full Information Maximum Likelihood.
- Least absolute shrinkage & selection operator—sparse network (R qgraph).
- Centrality indices: strength, betweenness, closeness, expected influence (R Bootnet).
- Strength—most stable—used for interpretation.

RESULTS



Standardized centrality indices for the overall network.
Strength: Restlessness (GAD-7) & inhibition (EF)
Closeness: Restlessness (GAD-7), psychomotor agitation/retardation (PHQ-9)
Betweenness: Restlessness (GAD-7), psychomotor agitation/retardation (PHQ-9)
Influence: Inhibition (EF)

LIMITATIONS & FUTURE DIRECTIONS

- Cross-sectional
- Child EF was parent-reported
 - Future research: Use task-based/observational EF data
- Sample size was small for network analysis
- Data collected during COVID-19 pandemic, low generalizability