Core psychopathology underlying disordered eating behaviors and nonsuicidal self-injury: A network analysis

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Body Dissatisfaction Bridges Disordered Eating Behaviors and Nonsuicidal Self-Injury in Female College Students
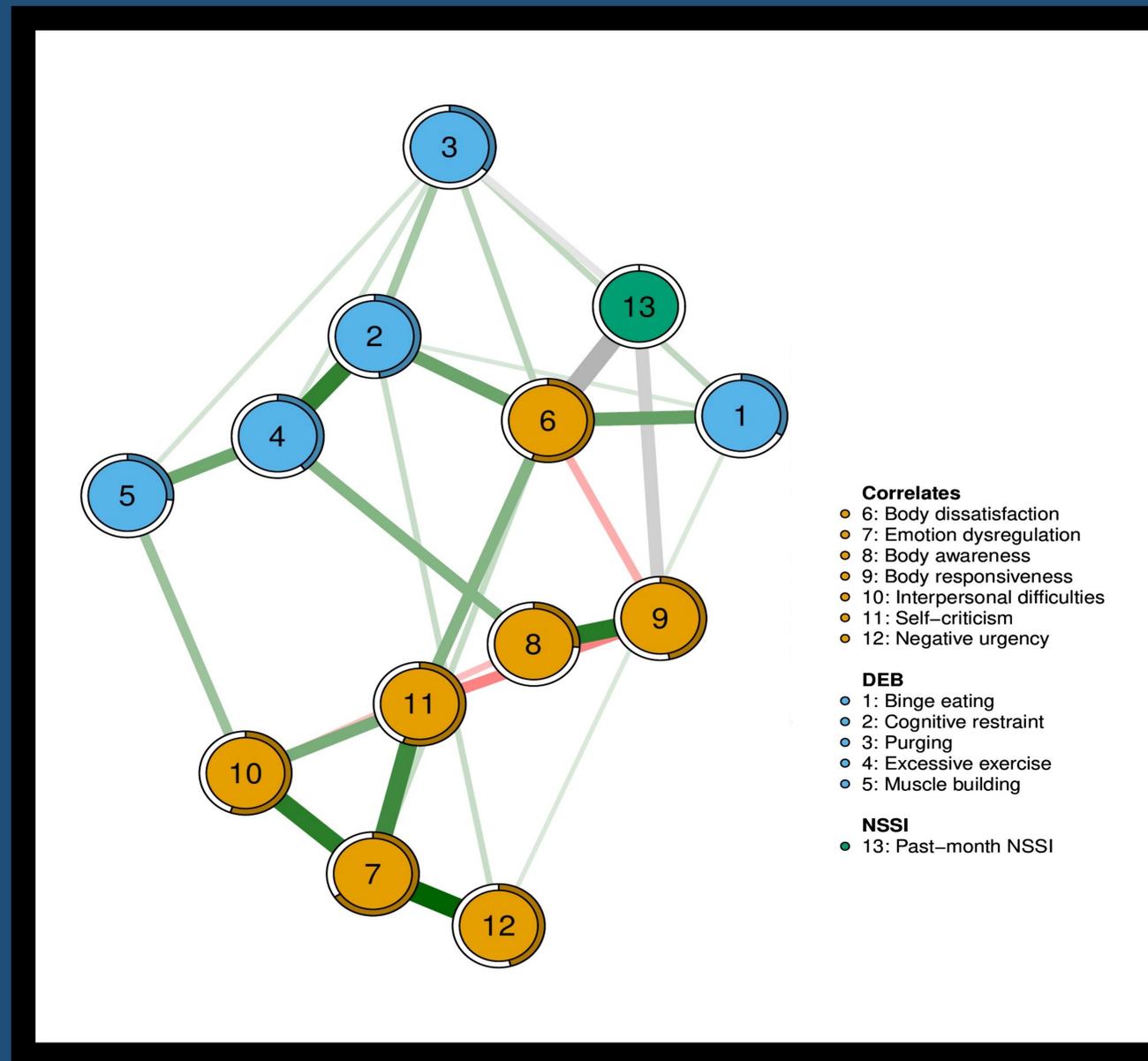
BACKGROUND:

- Disordered eating behaviors and nonsuicidal self-injury frequently co-occur in clinical and nonclinical populations.
- Several psychological correlates have been implicated in the development and maintenance of both behaviors.
- This study utilized a network analytic approach to investigate which correlates are most central to the relationship between both types of behaviors.

METHOD:

- Sample consisted of 203 female undergraduate students (M_{age} = 19.52).
- Participants completed self-report measures of disordered eating, nonsuicidal self-injury, emotion dysregulation, body awareness, body responsiveness, interpersonal difficulties, self-criticism, negative urgency, and demographics.
- A mixed graphical model was estimated using the R package *mgm*.
- Expected influence was calculated using the R package *qgraph* to assess for node centrality.
- Node predictability was calculated using the R package *mgm*.
- Edge and centrality stability were calculated using the R package *bootnet*.
- Bridge centrality was calculated using the R package *networktools*.

Correlates
- 6: Body dissatisfaction
- 7: Emotion dysregulation
- 8: Body awareness
- 9: Body responsiveness
- 10: Interpersonal difficulties
- 11: Self–criticism
- 12: Negative urgency

DEB
- 1: Binge eating
- 2: Cognitive restraint
- 3: Purging
- 4: Excessive exercise
- 5: Muscle building

NSSI
- 13: Past–month NSSI

RESULTS:

- The network had acceptable stability (edge stability coefficient = 0.44; expected influence centrality stability coefficient = 0.44; bridge expected influence centrality stability coefficient = 0.36).
- The two strongest associations in the network were between negative urgency and emotion dysregulation (*r* = 0.38) and past-month NSSI engagement and body dissatisfaction (*r* = 0.33).
- The three most central nodes in the network were body dissatisfaction (expected influence coefficient [EIC] = 2.19), emotion dysregulation (EIC = 1.37), and self-criticism (EIC = 0.48).
- Node predictability ranged from 0 to 0.66, with a mean of 0.41. Emotion dysregulation had the highest predictability (0.66).
- The node with the highest bridge centrality was body dissatisfaction (bridge expected influence coefficient = 0.88).
- Notably, the association between body dissatisfaction and past-month NSSI engagement did not reach significance in the current sample.

DISCUSSION:

- Body dissatisfaction appears to be central to the association between disordered eating behaviors and nonsuicidal self-injury in female college students.
- Preventative interventions and treatments for both behaviors may benefit from targeting body image related concerns.
- Limitations of this study include small number of participants endorsing past-month NSSI engagement (n = 14) and a lack of temporal data to draw causal inferences.