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**Supplemental References**

**eMethods 1. Bootstrapped Estimation of LASSO-Regularized Networks**

The *IsingFit* R-package used for estimation implements a specialized network construction methodology appropriate for binary items (*eLasso*).1 As described, this process involves iteratively estimating a series of models regressing each variable onto all others. The underlying *glmnet*2package estimates 100 variants of each model by default, adding a different penalty term to each. Effectively, this process creates a large collection of possible network structures with varying levels of connectedness.3 The optimal network is then selected by minimizing the Extended Bayesian Information Criterion, which in the case of model selection is formulated for each model *j* as:1

Notably, EBIC estimation is informed by the sample size (*n*), therefore model selection will not necessarily be equivalent across samples – with lower sample sizes will generally produce more parsimonious (i.e., sparse) networks. Comparisons across networks are therefore only justifiable when sample sizes are approximately equivalent.3,4 To allow such comparisons, we adapted a procedure previously described by Rhemtulla et al.4 For each experimental group (IPV+/IPV-) we drew 1,000 bootstrap samples of size *n* = 1000 (an approximate median sample size). *Ising* model edge weight matrices were constructed for each bootstrap sample and averaged to create a final network for each group. Notably, these averaged networks demonstrated greater kurtosis and positive skew, resulting from a higher frequency of edge weights close to zero. We attribute this to an aggregation of statistical noise near the lower bound of edge weight estimates (*r* ≈ 0), where the presence of an unreliable edge weight value (e.g., 0.01) in one network cannot be offset by another. We adjusted for this by imposing a threshold on each edge weights matrix at the level of the minimum non-zero edge weight found in a non-averaged network.

**eMethods 2. Bridge Symptom Thresholding with the Elbow Criterion**

In order to threshold the bridge strength measure across network nodes, an ‘elbow’-identifying algorithm was implemented. Given a monotonically decreasing function, *f*(*x*), the elbow can be conceptualized as the point *x* at which subsequent increases in *x* lead to negligibly small changes in *f*(*x*), which we assume are attributable to noise. This method is especially useful for functions that are similar to and/or scale with the function *f*(*x*) = | |, where the elbow point is visually apparent. We used an iterative sliding-widow approach, wherein nodal bridge strength was sorted in descending order and the variance of bridge strength was calculated within a window length of *n* ∈ {2, 3, 4… N-1} nodes, where N is the total number of nodes in the network. Importantly, although dependent on the number of total windows, the variance as a function of window number approximates the function *f*(*x*) = | |. We then generated a line connecting the first window variance to the last window variance and calculated the orthogonal distance from each point to the line. The point with the maximum orthogonal distance was designated the elbow point. This was repeated for each window length and the mode of all elbow points was used as the bridge symptom threshold.

**eMethods 3. Centrality & Clustering**

Nodes (here symptoms) may be assessed in terms of their influence over the broader network or ‘centrality’.5 In weighted networks, node centrality may be quantified according to ‘strength’, the sum of the absolute value of all associations involving a given node. In an undirected network, this effectively captures the magnitude of the information current flowing through a given node. In comparison to a node with low strength centrality, disturbance of a node with high strength will exert a greater effect on the network as a whole. Notably, computation of ‘strength’ centrality for a given node incorporates all connected edges (in contrast to ‘bridge’ centrality which includes only edges to non-communal nodes).

A second property, the clustering coefficient, describes the tendency of an individual node’s neighbors to hold direct connections to each other. Nodes with high clustering coefficients hold a more redundant position in the network, since neighbors can directly affect each other without traversing the node.6 In our results, we represent this using the *Zhang* coefficient,7 computed using the formula adapted by Costantini and Perugini8 as appropriate for signed correlation-based networks.6,9

**eTable 1. Standardized Strength Centrality Scores by Network and Node**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **All** | | **DX+/IPV+** | | **DX+/IPV-** | |
| **Symptom Node** | **Strength** | **Rank** | **Strength** | **Rank** | **Strength** | **Rank** |
| Abnormal Weight Concerns | -1.75 | 56 | -1.94 | 54 | -1.88 | 56 |
| Agoraphobia | 0.71 | 14 | -0.15 | 33 | 0.01 | 30 |
| Anhedonia | 0.38 | 19 | -0.17 | 34 | 0.16 | 26 |
| Annoying/Blaming Others | 0.03 | 25 | 0.49 | 18 | 0.21 | 24 |
| Arguing w/ Adults/Authority | 0.68 | 15 | 0.95 | 9 | 0.87 | 11 |
| Bingeing | -1.31 | 50 | -0.99 | 47 | -1.81 | 55 |
| Blurting out Answers | -0.25 | 35 | 0.22 | 22 | 0.45 | 21 |
| Bullying/Fighting | 0.10 | 24 | 0.29 | 20 | 0.54 | 18 |
| Caregiver-Related Nightmares | -0.10 | 29 | -0.98 | 46 | -1.00 | 46 |
| Cognitive Panic SX | -0.25 | 34 | -0.20 | 36 | -0.60 | 38 |
| Compulsions | 0.40 | 18 | 0.07 | 27 | 0.59 | 16 |
| Cruelty to Animals/People | 0.23 | 23 | 0.35 | 19 | 0.82 | 12 |
| Crying Spells | 1.25 | 6 | 0.24 | 21 | 0.48 | 20 |
| Difficulty Completing Tasks | 0.72 | 13 | 1.30 | 7 | 1.29 | 7 |
| Difficulty Focusing | 1.14 | 7 | 1.62 | 4 | 2.07 | 1 |
| Difficulty Planning | -0.48 | 38 | -0.39 | 39 | -0.88 | 45 |
| Difficulty Sitting Still | -0.38 | 36 | 0.14 | 24 | -0.41 | 36 |
| Difficulty Taking Turns | 0.03 | 26 | 0.06 | 28 | -0.19 | 32 |
| Difficulty w/ Detail | -0.97 | 47 | -0.30 | 38 | -0.35 | 35 |
| Distress on Separation | -0.94 | 46 | -1.12 | 49 | -0.64 | 40 |
| Elation | 0.91 | 12 | 0.67 | 12 | 1.19 | 9 |
| Excess Energy | 0.53 | 17 | 1.26 | 8 | 1.85 | 3 |
| Fear of Being Alone | -1.34 | 51 | -2.17 | 56 | -1.09 | 48 |
| Frequent Thoughts of Death/Dying | -0.68 | 42 | 0.09 | 25 | -0.78 | 44 |
| General Irritability | 1.42 | 4 | 0.60 | 15 | 0.58 | 17 |
| Grandiosity | -0.43 | 37 | -0.10 | 30 | 0.19 | 25 |
| Hoarding | -1.01 | 48 | -1.14 | 50 | -1.26 | 49 |
| Hyperkinesis | 0.99 | 10 | 1.75 | 3 | 1.42 | 4 |
| Inattention | 1.01 | 9 | -0.13 | 32 | 1.03 | 10 |
| Insomnia | 0.66 | 16 | 0.92 | 10 | 1.31 | 5 |
| Interpersonal Delusions | -1.56 | 53 | -1.24 | 51 | -1.35 | 50 |
| Lying/Stealing | -0.57 | 41 | -0.80 | 44 | 0.13 | 28 |
| Non-vocal Paracusia | -1.43 | 52 | -0.74 | 43 | -1.01 | 47 |
| Obsessions | 3.04 | 1 | 2.22 | 1 | 0.23 | 23 |
| Olfactory Hallucinations | -1.67 | 54 | -0.48 | 41 | -1.52 | 52 |
| Perceived Injustice | 1.09 | 8 | 0.67 | 13 | 0.42 | 22 |
| Perfectionism | -1.15 | 49 | -0.89 | 45 | -0.72 | 43 |
| Pressured Speech | 0.28 | 21 | 1.44 | 5 | 0.80 | 14 |

**eTable 1 (cont.). Standardized Strength Centrality Scores by Network and Node**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **All** | | **DX+/IPV-** | | **DX+/IPV+** | |
| **Symptom Node** | **Strength** | **Rank** | **Strength** | **Rank** | **Strength** | **Rank** |
| Rule Breaking | 1.45 | 3 | 2.08 | 2 | 1.85 | 2 |
| Sad/Depressed Feelings | 0.95 | 11 | 0.54 | 17 | 1.31 | 6 |
| School/Play Refusal | -0.70 | 43 | -1.10 | 48 | -0.19 | 33 |
| Social Anxiety | -0.56 | 40 | -1.35 | 52 | -1.47 | 51 |
| Somatic Panic SX | -0.12 | 30 | -0.48 | 42 | -0.68 | 42 |
| Specific Phobia | -1.71 | 55 | -2.11 | 55 | -1.56 | 53 |
| Tactile Hallucinations | 1.36 | 5 | 0.75 | 11 | 0.81 | 13 |
| Task Avoidance | -0.16 | 32 | -0.18 | 35 | -0.61 | 39 |
| Thoughts of Suicide | -0.08 | 27 | 0.14 | 23 | -0.07 | 31 |
| Threatening Others | 2.10 | 2 | 1.41 | 6 | 1.23 | 8 |
| Truancy/Running Away | 0.28 | 22 | 0.54 | 16 | -0.56 | 37 |
| Use of a Weapon | -0.17 | 33 | -0.47 | 40 | 0.14 | 27 |
| Vandalism | 0.29 | 20 | 0.65 | 14 | 0.66 | 15 |
| Vindictiveness | -0.14 | 31 | -0.03 | 29 | 0.50 | 19 |
| Visual Hallucinations | -0.75 | 44 | -0.22 | 37 | -0.65 | 41 |
| Vocal Paracusia | -0.53 | 39 | 0.07 | 26 | 0.06 | 29 |
| Worry About Separation | -0.09 | 28 | -0.10 | 31 | -0.33 | 34 |
| Worrying | -0.76 | 45 | -1.55 | 53 | -1.59 | 54 |

**eTable 2. Standardized Zhang Clustering Metric by Network and Node**

|  |  |  |  |
| --- | --- | --- | --- |
| **Symptom node** | **All** | **DX+/IPV+** | **DX+/IPV-** |
| Abnormal Weight Concerns | -1.33 | -1.43 | -1.46 |
| Agoraphobia | -1.31 | -1.35 | -1.42 |
| Anhedonia | -0.56 | 0.09 | -0.02 |
| Annoying/Blaming Others | 0.08 | -0.51 | -0.01 |
| Arguing w/ Adults/Authority | 0.19 | 0.96 | 0.83 |
| Bingeing | -1.63 | -1.27 | -1.46 |
| Blurting out Answers | -0.61 | -0.85 | -0.69 |
| Bullying/Fighting | 0.75 | -0.30 | 0.45 |
| Caregiver-Related Nightmares | -1.15 | -0.70 | -1.25 |
| Cognitive Panic SX | -1.50 | -1.16 | -1.37 |
| Compulsions | -0.35 | 0.71 | -0.33 |
| Cruelty to Animals/People | 1.42 | -0.02 | 0.53 |
| Crying Spells | -0.67 | 0.16 | 0.09 |
| Difficulty Completing Tasks | 0.48 | 0.39 | 0.23 |
| Difficulty Focusing | 0.43 | 0.23 | -0.13 |
| Difficulty Planning | -0.54 | -0.14 | 0.49 |
| Difficulty Sitting Still | -0.53 | -0.16 | 0.40 |
| Difficulty Taking Turns | -0.87 | -0.54 | -0.33 |
| Difficulty w/ Detail | 1.36 | 0.59 | 0.38 |
| Distress on Separation | 0.65 | -0.22 | 0.51 |
| Elation | 0.41 | 0.98 | 0.80 |
| Excess Energy | 2.21 | 1.28 | 1.14 |
| Fear of Being Alone | -0.09 | 1.10 | -0.92 |
| Frequent Thoughts of Death/Dying | -0.59 | -1.08 | -0.66 |
| General Irritability | -0.69 | -0.19 | 0.03 |
| Grandiosity | 2.38 | 1.90 | 1.65 |
| Hoarding | -0.68 | -1.19 | -1.46 |
| Hyperkinesis | 0.87 | 0.27 | 1.20 |
| Inattention | -0.27 | 0.55 | 0.18 |
| Insomnia | 1.04 | 1.41 | 0.86 |
| Interpersonal Delusions | -1.04 | -0.79 | -0.76 |
| Lying/Stealing | 0.76 | 0.18 | -0.06 |
| Non-vocal Paracusia | -0.90 | -0.15 | -1.04 |
| Obsessions | -1.32 | -0.82 | 0.04 |
| Olfactory Hallucinations | 0.50 | 0.26 | 0.58 |
| Perceived Injustice | -0.49 | 0.87 | 0.73 |
| Perfectionism | 2.08 | 4.20 | 3.47 |
| Pressured Speech | 1.17 | 0.09 | 1.49 |
| Rule Breaking | -0.23 | -0.10 | -0.19 |
| Sad/Depressed Feelings | 0.24 | 0.24 | -0.19 |

**eTable 2 (cont.). Standardized Zhang Clustering Metric by Network and Node**

|  |  |  |  |
| --- | --- | --- | --- |
| **Symptom node** | **All** | **DX+/IPV+** | **DX+/IPV-** |
| School/Play Refusal | 0.44 | -0.22 | -0.18 |
| Social Anxiety | -0.73 | -1.35 | -1.46 |
| Somatic Panic SX | -1.43 | -1.10 | -1.35 |
| Specific Phobia | 0.74 | -1.43 | -1.46 |
| Tactile Hallucinations | -1.22 | -0.36 | -0.88 |
| Task Avoidance | 0.05 | 1.32 | 2.41 |
| Thoughts of Suicide | -0.38 | -0.72 | -0.74 |
| Threatening Others | -0.02 | -0.07 | 0.12 |
| Truancy/Running Away | 0.44 | 0.11 | 0.03 |
| Use of a Weapon | 2.07 | 1.65 | 0.06 |
| Vandalism | 1.57 | 0.57 | -0.19 |
| Vindictiveness | 0.13 | -0.02 | -0.10 |
| Visual Hallucinations | 0.08 | -0.36 | 1.30 |
| Vocal Paracusia | -0.07 | -0.12 | -0.36 |
| Worry About Separation | -0.43 | -1.04 | 0.14 |
| Worrying | -0.91 | -0.34 | 0.36 |

**Supplemental References**

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