Supplemental Materials

**Network Estimation**

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***Sample 1.*** The regularized partial correlation network for Sample 1 is depicted in Figure 1. In this network, 137 of 325 possible edges between symptoms (42.2%) were estimated to be non-zero, with all but one edge being positive (i.e., negative edge between distressing dreams [PCL2] and total number of NSSI incidents [NSSIfreq]). Within PTSD symptoms, 107 of 190 possible edges (56.3%) were estimated to be above zero. For SITB symptoms, 13 of 15 possible edges (86.7%) were estimated to be above zero. Of the possible edges connecting the two disorders, only 17 of 120 (14.2%) possible edges were non-zero.

***Sample 2.*** The regularized partial correlation network for Sample 2 is depicted in Figure 1. In Sample 2, 170 of 325 possible edges between symptoms (52.3%) were estimated to be non-zero. There were 155 positive edges and 15 negative edges in Sample 2, in contrast to the one negative edge in Sample 1. Within PTSD symptoms, 124 of 190 possible edges (65.3%) were estimated to be non-zero, including 2 negative edges (i.e., distorted blame of oneself or others [PCL10] and irritable behavior [PCL15]; avoid reminders [PCL7] and risky behavior [PCL16]). For SITB symptoms, 11 of 15 possible edges (74.3%) were estimated to be non-zero. While the percentage of non-zero edges were similar for within PTSD and within SITB between the samples, Sample 2 had more non-zero edges including more negative edges than Sample 1 for edges between disorders. Specifically, of the possible edges connecting the two disorders, 35 of 120 (29.3%) possible edges were non-zero, including 13 negative edges.

**Network Inference**

***Centrality.*** Expected influence takes into account negative associations between nodes for a sum of magnitude of edge-weights (Robinaugh et al., 2016). Given that there are negative edge-weight(s) in both Sample 1 and Sample 2, we report expected influence as our metric of centrality.

*Sample 1.* Supplemental Figure 1 illustrates the centrality expected influence of the overall network for Sample 1. In Sample 1, strong startle reaction (PCL18), persistent negative emotional state (PCL 11), physiological reactions of the trauma (PCL 5), unwanted memories (PCL1), and detachment from others (PCL13) emerged as the nodes with the greatest centrality expected influence.

*Sample 2.*Supplemental Figure 1 depicts the centrality expected influence of the overall network for Sample 2. Three of the symptoms with the greatest centrality expected influence were the same as those identified in Sample 1 (i.e., PCL11, PCL1, and PCL5). In addition, frequency of SI in last month (SIfreq) and intensity of SI in last month (Intensity) had high degrees of centrality expected influence.

**Network Accuracy**

Nonparametric bootstrapping was used to calculate confidence intervals around edge-weights. Results revealed overlapping confidence intervals for many edge-weights, indicating that their relative magnitude should be interpreted with care. Furthermore, current guidelines suggest that to interpret centrality metrics the centrality stability coefficient (CS -coefficient) should not be below 0.25; however, it has been noted that “these cutoff scores emerge as recommendations from this simulation study; however, they are somewhat arbitrary and should not be taken as definite guidelines,” (Epskamp et al., 2018, p. 200). In both Sample 1 and Sample 2, stability coefficients for strength (.10) and edge-weights (.10) were equally reliable, albeit somewhat below this established guideline. Thus, results should be interpreted with some caution. To date, there are no available centrality metrics for expected influence. Previously published networks of PTSD have reported levels of stability below or just at the recommended threshold (e.g., Armour et al., 2017; McNally et al., 2017). The low stability in this study is likely due to the low base rate and thus, low endorsement of SITB. While these samples did have higher than average rates of SITB, the rates are still lower than that of the PTSD symptoms. In addition, Mitchell et al. (2017) reported a 0.439 stability coefficient for strength. Given that these samples are very similar, it may indicate that the addition of SITB items reduced the stability of the network.

To address concerns that low endorsement of particular symptoms (i.e., restricted variability) would affect metrics of centrality, correlations between skewness and centrality metrics were examined. In both samples, the correlations between skewness and centrality were not statistically significant at *p* < .05, suggesting that the centrality metrics are not conflated by restricted variability.

**Supplemental Table 1**

*Descriptive Statistics of SITB Variables at First Measured Time Period*

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Sample 1 (*N* = 349) | Sample 2 (*N* = 1,307) |
|  |  | *n* (%) | *n* (%) |
|  |  | Mean (*SD*) | Mean (*SD*) |
| Non-Suicidal Self-Injurious Behavior (NSSI) | |  |  |
|  | Endorsed engaging in 1+ type of NSSI | 284 (81.4%) | 145 (11.1%) |
|  | Modal different types of NSSI | 1 | 2 |
| Suicidal Ideation | |  |  |
|  | **DSI-SS (past two weeks)** |  |  |
|  | Total Score | 1.5 (2.0); 0-10 | -- |
|  | At least some ideation (i.e., >=1)a | 155 (44.4%) | -- |
|  | Internal Consistency (Cronbach’s α) | .91 |  |
|  | **MINI-Suicide Scale (past month)** |  |  |
|  | No ideation | -- | 1,013 (77.5%) |
|  | Passive ideation | -- | 79 (6.0%) |
|  | Active ideation | -- | 202 (15.5%) |
|  | Suicide plan | -- | 13 (1.0%) |
|  | Frequency of ideationb |  |  |
|  | Occasionally | -- | 155 (11.9%) |
|  | Often | -- | 32 (2.4%) |
|  | Very Often | -- | 21 (1.6%) |
|  | Intensity of ideationb |  |  |
|  | Mild | -- | 105 (8.0%) |
|  | Moderate | -- | 78 (6.0%) |
|  | Severe | -- | 25 (1.9%) |
| Suicide Attempt | |  |  |
|  | At least one lifetime suicide attempt | 114 (32.3%) | 322 (24.6%) |
|  | Lethality (most lethal attempt**)**c |  |  |
|  | No medical attention required | 59 (16.9%) |  |
|  | Primary care doctor or nurse visit | 7 (2.0%) |  |
|  | Emergency room visit | 26 (7.4%) |  |
|  | Hospital admission to a general medical floor | 15 (4.3%) |  |
|  | Hospital admission to an Intensive Care Unit | 7 (2.0%) |  |
|  | Intent (most recent attempt)c |  |  |
|  | I did not intent to die | 7 (2.0%) | -- |
|  | Part of me intended to die and part of  me did not | 58 (16.6%) | -- |
|  | I intended to die | 49 (14.0%) | -- |

aOnly total score was included in the network for Sample 1; bParticipants who denied suicidal ideation in last two weeks were not presented these questions; cParticipants who denied a lifetime suicide attempt were not presented these questions. DSI-SS= Depression Symptom Inventory - Suicide Subscale; MINI= The Mini-International Neuropsychiatric Interview; SITB= self-injurious thoughts and behaviors

**Supplemental Table 2**

*Descriptive Statistics of Trauma Variables at First Measured Time Period*

|  |  |  |
| --- | --- | --- |
|  | Sample 1 (*N* = 349) | Sample 2 (*N* = 1,307) |
|  | Mean (*SD*); Range | Mean (SD); Range |
| PCL-5 total score severity | 26.6 (20.4); 0-80 | 39.7 (20.1); 0-80 |
| Number of different types of traumatic events\* | 7.5 (4.2); 1-29 | 9.3 (4.5); 0-34 |
| Internal Consistency of PCL-5 (Cronbach’s α) | .96 | .96 |
|  | *n* (%) | *n* (%) |
| Met Criterion A for *DSM-5* traumatic event | 349 (100%) | 1,307 (100%) |
| Met provisional diagnosis of *DSM-5* PTSD\*\* | 127 (36.4%) | 744 (56.9%) |
| **Most highly endorsed LEC-5 events “happened to me”** |  |  |
| Combat or exposure to a war-zone | 10 (2.9%) | 1,217 (93.1%) |
| Transportation accident | 235 (67.3%) | 775 (59.3%) |
| Sexual assault | 145 (41.5%) | 380 (29.1%) |
| Other unwanted/uncomfortable sexual experience | 197 (56.4%) | 480 (36.7%) |
| Physical assault | 186 (53.3%) | 659 (50.4%) |
| Assault with weapon | 54 (15.5%) | 570 (43.6%) |
| Natural disaster | 160 (45.8%) | 518 (39.6%) |
| **Most highly endorsed LEC-5 events “witnessed it”** |  |  |
| Transportation accident | 143 (41.0%) | 288 (22.0%) |
| Physical assault | 130 (37.2%) | 1,090 (83.5%) |
| Life-threatening illness or injury | 146 (41.8%) | 836 (64.0%) |
| Sudden violent death | 39 (11.2%) | 874 (66.9%) |
| Sudden accidental death | 51 (14.6%) | 1,043 (79.8%) |

\*Number of different types of traumatic events participants reported experiencing or witnessing on LEC-5. \*\*Provisional diagnosis for PTSD was determined using PCL-5 symptom scores and based on *DSM-5* criteria, which was defined as experiencing at least one reexperiencing symptom, one avoidance symptom, two NACM symptoms, and two hyperarousal symptoms rated as 2=*moderately* or higher. LEC-5=Life Events Checklist for *DSM-5*, PCL-5=PTSD Checklist for *DSM–5*

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*Supplemental Figure 1.* Centrality expected influence for sample 1 and sample 2. \*indicates

symptoms that vary between samples. See Table 2 for a list of symptom names and description.