

Diagnosis Models 1-7. To verify that the factor analysis conducted reveals meaningful combinations of disorders, we instead conducted multiple regressions using each clinical disorder as predictors in the first 7 models (see Supplementary Table 1). Only two models were significant (Model 2, StDev RT and Model 3, PES). In Model 3, Anxiety disorder diagnosis was significantly associated with more post-error slowing, consistent with the anxiety factor model ($\beta = 0.212, p = 0.021$). Otherwise, only mean RT was a significant predictor in both Models 2 and 3. Although the full Model 4 (CEs) was not significant, and thus individual predictors should generally not be interpreted, substance use disorder diagnosis was a significant predictor of commission errors ($\beta = 0.198, p = 0.037$), demonstrating consistency with the substance factor model. No other clinical diagnoses were uniquely found to have a significant association with any of the gradCPT measures. These results indicate that the clinical phenotypes, particularly PTSD/mood and Somatic/TBI, are associated with attentional deficits that are not captured with any one diagnosis.

Supplementary Table 1. Summary of Multiple Regression Models using Unitary Disorders

| | PTSD | | | Depression | | | Anxiety | | | Substance | | |
|---------|-------|------|---------|------------|------|---------|---------|------|---------|-----------|------|---------|
| | B | SE B | β | B | SE B | β | B | SE B | β | B | SE B | β |
| Model 1 | .003 | .016 | .019 | -.010 | .019 | -.052 | -.008 | .018 | -.045 | -.009 | .019 | -.070 |
| Model 2 | .002 | .006 | .027 | .005 | .008 | .045 | .010 | .007 | .105 | .004 | .008 | .041 |
| Model 3 | .009 | .025 | .034 | -.013 | .030 | -.041 | .066 | .028 | .212* | -.007 | .030 | -.022 |
| Model 4 | .011 | .031 | .037 | .044 | .037 | .115 | -.002 | .035 | -.007 | .078 | .037 | .198 |
| Model 5 | -.014 | .016 | -.093 | -.010 | .019 | -.052 | -.005 | .018 | -.027 | -.006 | .019 | -.032 |
| Model 6 | -.312 | 6.63 | -.005 | -8.48 | 7.91 | -.107 | -1.54 | 7.37 | -.202 | -1.64 | 7.83 | -.020 |
| Model 7 | -.149 | .123 | -.130 | .121 | .148 | .082 | -.041 | .138 | -.029 | -.054 | .146 | -.035 |

Note. * = $p < 0.05$, ** $p \leq 0.01$. Models 1-7 represents mean RT, StDev RT, PES, CE, OE, # OE lapses, & Ave OE duration.

Table continued.

| | Pain | | | Sleep | | | RT Total | | | Total Model | | |
|---------|-------|------|---------|-------|------|---------|---------------------------|------|---------|----------------|-------|----------|
| | B | SE B | β | B | SE B | β | B | SE B | β | R ² | F | <i>p</i> |
| Model 1 | .007 | .015 | .023 | -.019 | .017 | -.107 | | | | .020 | .394 | .882 |
| Model 2 | -.004 | .006 | -.046 | .008 | .007 | .085 | .336 | .038 | .670** | .450 | 13.43 | .000** |
| Model 3 | -.026 | .025 | -.093 | -.015 | .028 | -.051 | .628 | .150 | .361** | .176 | 3.44 | .002** |
| Model 4 | -.006 | .030 | -.018 | .022 | .034 | .062 | | | | .073 | 1.52 | .178 |
| Model 5 | .020 | .016 | .126 | .015 | .018 | .084 | <u>OE Duration/Number</u> | | | .032 | .634 | .703 |
| Model 6 | 10.65 | 6.43 | .158 | 2.23 | 7.25 | .030 | 8.26 | 4.93 | .161 | .056 | .976 | .452 |
| Model 7 | -.140 | .121 | -.111 | .123 | .135 | .090 | .003 | .002 | .161 | .055 | .958 | .465 |

Note. * = $p < 0.05$, ** $p \leq 0.01$. Models 1-7 represents mean RT, StDev RT, PES, CE, OE, # OE lapses, & Ave OE duration.